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ORIGINAL ARTICLES.

REPORT OF A CASE OF CONGENITAL ENCEPHALOCELE.

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Read in Section of Diseases of Children of the American Medical Association, May, 1884.

The comparative infrequency of encephalocele as a congenital malformation, the caution advised by authors as regards operative procedures for it, and the gratifying results which I have recently had in the management of a case, lead me to make this report. It was to me a very interesting case and one which I followed closely, though I regret, that owing to the bad hygienic surroundings, I did not watch it as assiduously as I should. Before presenting the case, I ask your indulgence for a few moments, that I may review cursorily the history of encephalocele, for it may be of interest to you as it certainly has been instructive to me.

The writers of the latter part of the eighteenth and beginning of the nineteenth centuries spoke of it only as "Hernia Cerebri" and "Fungus Cerebri." It is a protrusion of the brain tissue from the cranial cavity, generally in the course of a suture or fontanelle, when congenital, and in other situations when traumatic. Its size varies and it increases gradually, becoming sometimes very large. Gross reports a case in which the tumor was as large as the child's head. There are then two varieties of encephalocele; the one a congenital malformation, the other, traumatic. In this paper, we only consider the former. Being situated in the course of the sutures and fontanelles, it was supposed by the older writers to be due to deficient ossification, which is partially correct, though the real cause certainly is within the cranial cavity and associated oftentimes with ulceration of the dura mater at the point of the tumor as well as sometimes with cerebritis. In by far the great majority of cases reported the integument was perfect but in a few even that was wanting. Dr. Burrows, in 1810, describes a case of this kind as follows: "The whole of the forehead, summit, and greater part of the occiput were deficient, and in lieu of them a substance projected of a light mulberry color and of the mushroom form, except that it was proportionately broader. From the deficiency of bone the eyes appeared to project much more than usual. The child lived six days without even taking sustenance or having an evacuation." Bryant, in his work, refers to a case, by Lichtenberg, in which the tumor was hanging from the child's mouth, through an opening in front of the "Sella Turcica." Cooper reports a case which lived 33 years without any marked change in the intellect. Prescott Hewett, in "Holme's System of Surgery," reports two cases in which the cerebral structure protruded from the anterior nares and external auditory meatus, both of which proved fatal. The same writer also presents two other cases, one occurring at St. Bartholomew's Hospital, the other taken from the *American Journal of Medical Science* for 1859, wherein the brain tissue appeared at the above mentioned situations, and which ended in recovery. Spring, in 1853, mentions a case in which the encephalocele involved the entire left hemisphere: patient recovered and lived eleven years. Laurence has recorded seventy-nine cases, only six of which reached adult life. The cases to which I have just referred are certainly remarkable ones and not by any means typical cases of congenital encephalocele. Ordinarily the tumor is either in the occipital region or at the anterior fontanelle. It pulsates, bleeds freely if irritated, grows gradually if it is progressive, creates primarily very little if any general disturbance, but secondarily stupor, vomiting, etc.; especially does pressure upon it produce momentary coma and cerebral disturbance. Patients may die from asthenia or cerebral hæmorrhage. Bryant says it may be mistaken for a simple cyst, and unless positive as to its character we had better leave the case to nature.

Various methods of treatment have been recommended from time to time, among which are: (1) compression, (2) ligation, (3) complete and immediate excision.

In comparing the treatment of the surgeon of today with that of those of 75 or 100 years ago, I find that we are more prone to trust to nature for the excision of the tumor by ossification, than we are to operative means. I suppose this is correct as a rule, but I am satisfied that it will not suffice in all cases. On the other hand, the earlier surgeons favored more the knife, but I was surprised to learn that among them only one, Van Swietan, recommended and practiced with success in several cases *ligation*. As to compression by zinc plates, caps, etc., which has been recommended, they have been found to be only of slight value, and of course utterly valueless and harmful after the tumor has become larger than the

opening through which it came. From my investigations of the subject and my experience in this one case, I would advise trusting to nature to check the growth of the tumor or to remove it by closing the fontanelle or sutures, and when she fails the removal of it by ligations. This simple operation is safer than, and certainly just as effective as the knife. While, however, the removal of an encephalocele by excision is generally accompanied by copious and maybe fatal hæmorrhage, yet Quesnoy reports a case in which the patient tore off the protruded mass himself, and the parts healed without any bad results.

I will now report the case I have recently seen.

Willis M., colored, born August 28, 1882. When about seven (7) weeks old he was brought to me by his mother. I found a tumor about ¾ of an inch in diameter, situated immediately over the anterior fontanelle. This mass was covered by integument, was not smooth but regularly grooved, moved with each cardiac pulsation and even at this time had the characteristics of brain tissue. The following was obtained from the mother: She is a short, muscular, healthy woman, 40 years old and weighs about 200 pounds. She is the mother of 12 children, all of them with the exception of this one, without any deformity. She says that the week just previous to her last labor she was daily engaged in carrying coal up several flights of stairs; also that her labor lasted, to use her expression, "longer than with any three of her other children and the suffering much greater." I questioned her closely on this point, and from her repeated statements on various occasions, I believe labor lasted from twenty-four to thirty hours. She says that as soon as she looked at the child, she saw a small lump about the size of a bean on the fore part of the head, bluish in color and smooth. However, this lump grew, and as it grew it lost its smoothness and blueness, until when I saw it seven (7) weeks after birth it was as I have described above. I presented the case to my class and it was also examined by various members of the medical society of the county. Before interfering with it and as the child was not suffering in any way perceptible from it, I decided to follow the advice of surgeons and wait and see what nature would do in the case I, however, gave the mother a simple ointment to allay any irritation and ordered that the child be returned to me every two weeks and oftener if necessary.

This course was followed until about the middle of December following, during which time the tumor was gradually but very slowly increasing in size. Now there was slight nausea at times, some emaciation and some stupor. Two days after the last regular visit which was December 11, the mother, very much excited, returned with the child. And I must say, when she uncovered its head and I saw the condition of affairs, I was, until she gave a history of the last two (2) days, surprised at its size and appearances. The tumor now was as large as an ordinary orange and in short it was 5 or 6 times larger than when I saw it only two days before. Brain tissue was now distinctly marked, no indications of hydrencephalocele; pedicle filling up the opening in the skull and the mass moving with each pulsation of the heart. The child now was extremely nauseated, even throwing up its milk. I think I can give a rational explanation of this sudden enlargement:

During the two days that the tumor enlarged so rapidly, the mother was compelled to be absent from the child the greater part of both days. The grandmother was left in charge, and she informed me that during that time the child cried a great deal and very violently, and that during the fits of crying she could plainly see the tumor getting larger, or, to use her expression, "see the lump filling out."

I concluded I had given nature a fair trial, and decided to remove the mass. It was now bleeding freely when touched, and fearing hæmorrhage, I ligated it. From the moment I ligated it, all nausea and vomiting ceased. I re-applied the ligature about Jan. 1st and 15th, and had the satisfaction of learning from the mother, in the latter part of January, that the tumor had dropped off. I visited the child and found the proximal end completely healed, thus cutting off all communication with the cranial cavity through the anterior fontanelle. I saw the child last February, or one year after the removal of the tumor; there were no indications of its reappearance, and physically and mentally it was as well developed as children generally are at its age.

REPORT ON THE DISEASES OF THE EAR

IN LOCOMOTIVE AND OTHER ENGINEERS, FIREMEN AND CONDUCTORS, WHICH MAY ENDANGER THE LIVES OF THE TRAVELING PUBLIC.

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Read in Section of Ophthalmology, Otology and Laryngology of the American Medical Association, May, 1884.

In 1875[1] we made a series of experiments on the perception of "Musical Tones by the Human Ear."

Before giving the writer's experiments, in detail it will be proper to state the results obtained by other observers. The discrepancy, in our opinion, can only be accounted for in three ways. First, variations in the sound conducting portion of the auditory apparatus; second, defect, original or acquired, in the perceptive portion, and third, want of cultivation.

"Savart" fixed the lowest limit of the human ear for musical sounds at eight complete vibrations a second, by means of a toothed wheel and an associated counter, and the highest limit at twenty-four thousand vibrations. "Helmholtz" has fixed the lowest limit at sixteen vibrations and the highest at thirty-eight thousand. "Vierordt" gives the highest tone as forty-eight thousand, and "Desprets" as seventy-five thousand. The following table contains a series of

[1] Proceedings Am. Ass. Adv. Sci., 1875.

experiments which were found to vary with the age and condition of the hearing apparatus of the individual.

FIRST SERIES OF EXPERIMENTS.

Age.	Distance.	No. of Vibrations.
15	35 feet	40,000
18	" "	40,000
21	" "	35,000
25	" "	30,000
30	" "	25,000
50	" "	25,000
60	" "	20,000

In only one instance in a trained musical ear were sixty thousand vibrations in a second heard.

In May, 1879, I called the attention of the medical profession to the fact that I had found a number of persons who were naturally insensible to sounds above a certain pitch, just as it has been ascertained that there are individuals who cannot distinguish between different colors or certain rays of light of high refractive power.

Accidents have occurred to the public from such causes when persons so defective have had charge of the signals or sounding apparatus, such as are usually employed in case of danger to life.

In the following is a second series of experiments made in May, 1879. The subjects were all scientific men, either physicians, medical students or lawyers. The rods were of steel held within two inches of the ear; their temperature was about 70° F. The observations were conducted in a room remote from noise; weather cloudy and drizzling.

	Years.	Initial.	Vibrations.
From 20 to 30	22	G. H. R.	50,000
	23	A. De W.	50,000
	24	D. J.	55,000
	24	J. M.	40,000
	24	J. M. S.	35,000
	24	H. F. S.	55,000
	25	J. M B.	50,000
	26	J. E. F.	40,000
	26	A. O.	45,000
	26	H. P.	60,000
	28	I. O.	40,000
	29	J. S. T.	40,000
	29	C. M. T.	45,000
	30	F. W.	40,000
	30	J. E. W.	45,000
	30	C. S. T.	40,000
	30	W. S. L.	50,000
	30	G. A. N.	30,000
From 30 to 50	32	G. McC.	35,000
	36	J. R.	40,000
	39	W. K.	50,000
	47	J. A. M.	40,000
	48	R. M. S.	40,000
Above 50	52	E. R.	45,000
	57	L. T.	30,000

It will be seen by these and numerous other experiments which have been made by us, that the highest musical tone obtained in a normal healthy ear, not specially trained, did not exceed in any instance a fraction over forty thousand vibrations in a second. Education of the ear, to the recognition of musical tones, is as necessary as the training of the athlete to walk, run, box, row, bat or lift weights.

It was discovered that many individuals, even professional men who considered their hearing perfect, were found to be defective in one ear, either from cold or hereditation, or from sea or fresh water bathing, or from inflammation passing along the nostrils, pharynx and Eustachian tubes, to the middle ear, from what is termed an influenza, a coryza, or simple cold in the head.

Cases have been found by us where one or even both these defects have existed from birth in the same individual, that is, a person who was color-blind, also, had "no ear for music." Defective hearing was also discovered in engineers who have charge of stationary or marine engines, and also in conductors on steam trains, also on ordinary passenger cars of our city railroads. By this defective hearing the signal call with the voice or bell is not heard, and collisions have taken place, individuals been injured, and valuable lives have been lost.

The following are a few of the causes which I have noticed produce such attacks of deafness. Intense cold and exposure to cutting winds, snow and rain. The intensely shrill whistle of the locomotive near the ear, especially when in deep cuts or tunnels, or while running at high speed. The influence of long journeys, as from Edinburgh to London, causing in one case, which came under my personal observation, also inflammation of the brain. In two instances deafness was produced by a railroad trip from Philadelphia to California, producing vertigo, with roaring in the ear by the noxious influences of the dust and gases with the dry heated atmosphere during the summer months. The ears when examined were found to be filled with hard matters, particles of carbon, silica united with the epithelium and cerumen, causing irritation and inflammation by pressure, etc., on the membrane of the drum. In firemen it is noticed that the sudden change of temperature exerts a powerful influence upon the skin, in "firing up," causing excessive perspiration, and again passing into cold winds or deep depressions or tunnels, which in turn chill the body, causing disease of the nasal and respiratory organs, and extending into the Eustachian tubes causes deafness, which, if not promptly treated, becomes permanent. This disease of the ear or ears may have been originally acquired from the ordinary diseases of childhood, as scarlet fever, measles, whooping-cough or cold in the head, affecting, perhaps, only one ear. It is remarkable how long persons can get along with one deaf ear until some impairment takes place in the other, utterly unfitting them for important duties. When the deafness is caused by such employment on the railroads, where no organic change had taken place in the individual before entering upon his duties, and when the best years of a man's life have been spent in the service of the company, we would not advocate that such an individual should be thrown helpless upon the world; we would have his place changed to one of less importance, and where there would be no risk from his defective hearing. In the numerous positions on or about railroads there is found even employment for deaf men; and a discharge from active duty on part or full pension should be awarded, and would be but a small outlay in comparison with the risk of life or damages which the

company would have to pay. Another form of deafness I have noticed was in a conductor, namely, when his car was in motion he was able to hear well, but the moment it stopped his hearing became imperfect.

Owing to the profound deafness of a driver of a street railway car, a fire engine with a bell being constantly rung was not heard, and collision took place, and so great was the shock that the fore feet of the horses went through the windows of the car, and the only passenger in the car, a lady, was badly injured on the side and limbs, and her nervous system was completely shattered.

A mechanical engineer who had charge of a locomotive and subsequently a marine engine on board of a steamship, was so injured during a storm, that when he applied to be treated he could with one ear only hear the watch one-eighth of the normal distance, and with the other on close contact.

A case is also reported of a locomotive engineer who had his hearing so decreased during two years, from traveling through tunnels, that he had, while making up his own, caused a collision with another train, thus doing considerable damage.

Another case was of an engineer who had suffered from deafness of several years' standing; when his train was composed of more than twelve cars he could not hear the signal; he could only hear it four car-lengths.

On September 2d of 1880, Professor S. Moos, Heidelberg, read a paper before the second otological congress at Milan, on the diseases of locomotive engineers, firemen, etc., and stated that during the last few years he had been consulted for diseases of the ear by four locomotive engineers who had already resigned their post for other reasons, these cases had this in common that all four dated the origin of their deafness to the time when they still pursued their calling, that both ears were affected and the hearing was greatly diminished. Two of them suffered from constant subjective noises in both ears, one in one ear only, while the fourth heard no subjective noises at all. All four cases could be classified under the heading of sclerosed form of catarrh of middle ear. This fact led him to turn particular attention to the subject in question, especially of similar observations which he has since made of locomotive engineers and firemen—these being still in active duty had brought so vividly before him the danger which these affections might cause to the traveling public.

Entertaining similar views with those of "Moos" and knowing the large number of lives lost upon our railroads, I presented the subject to the careful consideration of the members of the Medical Society of the State of Pennsylvania, in May, 1881, and a committee was appointed to draft a resolution as follows:

Be it Resolved, therefore, that the Legislature of the State of Pennsylvania be petitioned at its next annual session to pass a law requiring all railroad employés to be examined for their acuteness of hearing, by means of the voice, watch, clock, bells, whistles, etc., before taking charge of any fast train on any railroad in the State of Pennsylvania.

After the reading of said resolution, which was approved by this Society, and on motion of Dr. John L. Atlee, of Lancaster, the author of the paper was appointed chairman of a committee of his own selection, to bring this important matter to the attention of the various railroad authorities, and obtain their aid and coöperation to carry into effect the following suggestions —

To the Presidents, Directors, and Superintendents of the various Railroads in the State of Pennsylvania.

GENTLEMEN: At a meeting of the Medical Society of the State of Pennsylvania held at the city of Lancaster, May, 1881, composed of representative medical men, from nearly every county of the State, who are convened yearly to discuss and devise measures for the conservation and improvement of the health of the community, and with special reference to the prevention and *cure* of diseases, accidents, and injuries to human life, a paper was read in which proof was given that, owing to deafness the result of disease or injury of the ears, railroad accidents have occurred, causing loss of valuable lives and property, for which enormous sums are paid for damages recovered from your companies in cases of such accidents.

(1) Locomotive engineers, firemen, and conductors are liable to affections of the ear with decrease of hearing, usually on one side, which may have been originally acquired from disease in their childhood or youth, or which is to be attributed to their employment.

(2) This deafness appears to be more dangerous than color-blindness, because the latter is usually a congenital defect which can be defined precisely before the individuals are placed on active duty, while the deafness is an acquired disease but slow in its approach, and sometimes unknown to the person affected until an accident, *e. g.*, a cold or an injury, diminishes the hearing more and more on one or both sides, or destroys it completely, if it is not properly and promptly treated.

In May, 1882, this committee reported that copies of the resolutions of 1881 of this Society[1] had been sent to all the presidents and superintendents of the railroads of Pennsylvania, and the subject of the defective hearing of locomotive and other engineers has elicited much interest, and we are also happy to state that the Pennsylvania Railroad has adopted the following rules in regard to the hearing of those in their employ:

This is to be carried out by the superintendent. A competent person is to note the number of feet or inches distant from each ear at which a watch having a loud tick is heard distinctly, using a stop watch, to detect any supposed deception; and the number of feet at which ordinary conversation is heard.

In testing as to hearing, if a person who has good ears hears the watch at five feet distant, and the person examined hears it only at one foot, his hearing would be one-fifth, and may be recorded in fractions. Conversation in any ordinary tone should be heard at 10 feet.

It should be understood that all employés examined, failing to come up to the requirements of the above standard, shall be accorded the benefit of a professional examination.

[1] Transactions Med. Soc. State of Pennsylvania, May, 1881.

The above method has been submitted to a practical experimental test extending over nearly 2,000 men, employed as conductors, engineers, firemen, and brakesmen.

As an evidence of this Dr. Thomson cites[1] two complete detailed reports including 1,383 men in all, who were in the service of the Pennsylvania Railroad, and, of this number, 21 were found defective in hearing. It will be well to compare the results of this examination with another branch of service, namely, the military, who are not so much exposed, except in time of war, and show how important it is for the United States Government to excite a livelier interest in otology among its surgeons, since there are many in its army whose health and usefulness suffer from ear affections, and indeed many who lose their lives simply from a want of knowledge on the part of their physician and surgeon.

The reports of the health bureau of the Prussian and Wurtemberg armies for 1874–78, show that during those four years there were removed on account of ear disease:

Died	23
Rendered unable to perform duty	1,701
Partial invalids	33
Complete invalids	126
Total	[2]1,883

We have also found that both military and naval surgeons, owing to the want of final examination in practical details in treating the diseases of the ear, are so much at a loss that they allow obscure cases of disease of this organ to continue for months without efficient treatment. The objections to the use of the watch alone as a test of the defective hearing of locomotive engineers, conductors, etc., is that it has but two tones or sounds, or two notes of the musical scale, and certain individuals will hear conversation with ease, and yet be unable to distinguish the ticking of a watch except when pressed against the ear. The perception of these tones does not furnish us any knowledge as to the condition of the ear in general, and especially as to its capacity of hearing the human voice.

We would advise that several other tests should be employed, as speaking tubes and bells, whispering, and certain agreed sentences of uniform value. During the year 1883–84 I have examined numbers of engineers and firemen, and many of them are noble fellows, and like the oldest railroad locomotive engineer of the Philadelphia and Reading Railroad, "Squire" Lufkins, who has for nearly 40 years devoted his whole thought and energy to his plain duty, to the carrying of his passengers in safety to their destination, and on time; when he began he was just 20 years old, but was a well-trained machinist, and a locomotive was his delight, and when he got one to run, his ambition was realized. He loved his work and never let his mind run off the track, as he well observed, "When an engineer's mind goes off on side trips, his train is apt to make a violent attempt to follow." "Didn't you feel the effects of the work and responsibility on your nerves?"

"I can't say I did. I've read of doctors saying that no man can stand the physical and mental strain of running an engine more than twenty-five years. I don't believe this is so. If it is, I am a great exception. I am just as capable to-day as I ever was in my life, and I think I could go on and complete my second twenty-five years. Of course the engine shook me up, and there was noise and exposure all the time, but I got used to these things. They got to be as matter of fact as eating. As to the sense of responsibility, I felt it, of course, but it sustained me instead of breaking me down. Why, it is the soul of engineering—this thought that one is taking care of the lives of others. If I didn't have it I wouldn't run an engine. It would be like running a church without any God. And I would not work on any railroad if the safety of the passengers was not the very first thought in every department, from president down."

"Did your train ever meet with an accident?"

"Nothing bad. I've had little mishaps, but I never received a censure from my superiors or my own self. One time a man was hurt on my train, and I heard he afterward died. He was on a platform, where he had no right to be, when a cow ran into my engine. She got caught in the wheels, and two coaches were derailed. The passenger was thrown off and badly hurt. I think there was a suit against the company, and the company won it. That's the only accident I can remember. It was this freedom from trouble for so many years that led me to resign my position about two years ago. Thinks I, I am getting rather old in years. I'll have to quit anyhow before a great while. If I quit after some misfortune people will blame me, and the company, too, for keeping me at work. I am just as good an engineer as ever, and I'll end my service on my own motion. So I sent in my resignation, and the company gave me a satisfactory place as detective between Broad and Callowhill depot and Belmont."

"Have you kept any record of your mileage?"

"Yes, a sort of record, but it would take months to make up any figures from it. It was a sort of account book that I carried in my pocket. I would enter my boarding-house expenses, my mileage and other things all together. But I was an engineer thirty-seven years, and ran all the time between Philadelphia and Pottsville. This is a distance of ninety-three miles, but the run actually made is 100 miles, for there is a lot of side running. For five years, at the start, I had a freight engine, and all the rest of the time a passenger engine. For the last fourteen years I doubled the run most of the time. Now, you can make a calculation from these figures and facts. You say 1,890,000 miles. That seems a great deal, but I suppose it will do. I think an average of 150 miles a day for 350 days in the year for thirty-six years, would be a moderate statement. That drops a whole year for safety's sake. But I do not take much pains to study out such sums in arithmetic. If I were a Frenchman I suppose I'd know how many times my travels would have carried me around the

[1] *Medical News*, Jan. 14, 1882, p. 38.

[2] E. Weil, Archives of Otology, March, 1882, p. 54.

world, and all such things. I only know they carried me so often between Philadelphia and Pottsville, that I know every tie in the track and almost when placed there."

LOCOMOTIVES OF OLD.

"No doubt you witnessed many changes and improvements?" "Yes, but they came like a boy grows and it wouldn't be easy to tell when any one occurred. When I began there were no cabs on the engines and we had to dress warm for outdoor work. Sometimes it wasn't easy to hang on, but the time made in those days was nothing to that now made. At 60 miles an hour, which is an ordinary rate, it wouldn't do to be without a cab in cold weather. The wind would cut your eyes out. I remember when the cab engines were first introduced here. It was on the Pennsylvania road, which then belonged to the State. The engineers all raised a great row at the change and there came near being a strike. They said the houses were death-traps, and if an accident happened there would be no way to escape. They soon changed their minds, and if the houses were taken off now there would be a riot, sure enough. But I've heard that some of the English locomotives have no cabs[1]."

This is one of the remarkable instances in which an engineer had the requisite knowledge, was young, robust, and of perfect health of body and mind and fully prepared for his life's work, and received his reward not in being turned off in his old age, but placing him as we have suggested in another situation. In the year 1883–84, I have been consulted by five locomotive engineers, men in middle life, on account of defective hearing, and four of the five have been so much improved by treatment as to be able to hear the ordinary voice and watch at five feet, and resume their care of their engines, one being still under treatment.

Two conductors were examined and found to have disease of the drum membrane with relaxation and progressive deafness. Neither of these could hear the ordinary voice well except when the train was in motion, and every one's voice when speaking had a higher pitch and the drum made tense. In nearly all of the engineers and firemen, deafness was the result of cold applied to the ear directly by looking out of the window in cold winter weather when in rapid motion.

Another cause was plunging the whole head into a bucket of cold water, to get rid of the dust, cinders, and other material which fill up the hair, nostrils and ears. We found that one of the conductors between Elkhart and Chicago, on the Lake Shore and Michigan Central railroad, was so deaf as not to be able to hear when a person spoke to him even in a loud tone. In another instance a driver on a street railroad could not hear a passenger call to him to stop, and in consequence he attempted to get off and fell and died from his injuries. As recently as April 12, 1884, an inquest was held in Philadelphia in the case of James Hastings, nine years old, who was struck and killed by a "dummy" engine of the Frankford and Southwark railway. The conductor and engineer were called as witnesses, and the latter, who gave his name as Frank Golden, indicated the possession of this peculiar deafness. The deputy coroner asked him a number of questions to which he gave irrelevant responses. "Are you hard of hearing?" inquired Mr. Ashbridge. "I am now, but not when I am on duty," explained the witness. "Then you can hear when you are on an engine, and there is a great deal of noise?" "Yes, when there is a noise around me I hear firstrate, but when everything is quiet it affects the drum of my ear."

Since the investigations of Prof. Moos on this important deterioration of the hearing of engine-drivers in 1880–81, the results have been confirmed by Drs. Bürkner, of Gottingen, and Dr. Hartmann, of Berlin; Dr. Wm. Thompson, of Philadelphia, and the writer; while with Dr. L. D. Schwabock and Dr. H. Pollnow, of Berlin, results were as follows:

1. The torpedo-signal (or a similar sound, like the breaking of a tire), the steam-whistle signal, and the lesser noise of the dry buffer, were accurately perceived by two engineers whose hearing for slight noises was diminished to $^1/_{25}$—$^1/_{50}$ respectively, and for whispered voice to about $^3/_4$ of the normal amount.

2. No one, even with perfect hearing, they state, can hear the conductor's whistle or any noise in the rear of the engine while the train is in motion. The experiment with the torpedo-signal was afterward tried in the case of others, whose hearing was greatly diminished for watch ($^5/_{125}$ cm.). But these employes heard the signal promptly. Finally another employe who heard W $^1/_8$, W. V. θ 0, 5 m.—2, 5 m,[1] was tested with the mouth whistle. He could hear it very plainly at 60 m, and said that the distance could have been doubled without any danger of his not hearing it. After summing up the results of their observations they came to the following conclusions: *That no great claims need be made upon the hearing of locomotive engineers or firemen, since a considerable diminution of hearing in these employes does not endanger the security of railroads.*

Dr. Hartmann states that it is not alone necessary that ordinary signals should be distinguished, but that there are other circumstances under which an engine-driver is placed, which render hearing more difficult, such as running in storms over a frozen track and through tunnels, etc. According to his experience, there are again other conditions which cause an engine-driver, who already hears badly, to hear much worse after having made a long journey, but recovers his hearing after leaving his engine. Some hesitation may be reasonably expressed and felt in accepting the conclusions of "Pollnow," viz.: "That so long as a conversation in ordinary voice can be heard, their defect involves no danger to the public."

The following facts were testified to by experienced engineers of the United States, who must depend largely upon their organ of hearing in order to assure the safety of the many lives entrusted to their care

[1] *Phil. Times.*

[1] Abbreviations. H. for hearing; W. for watch; T. F. tuning fork; B. C. for bone conduction; W. V. for whispered voice; cylinder watch, 1—25 m.

and skill: The sharp crack of a broken crank, the dull thud of a shattered connecting rod—in short, any of those obscure noises which signalize the approaching disability of a great machine, and any of those accidents which interfere with smooth running, may often, if readily discovered, save largely both of lives and property.

A veteran engineer says that two years ago a slight difference in the aggregate quality of the tones which came to his ear caused him to stop his train and look over the engine. "I found the trouble," said he, "to be due to the loosening nuts of two cylinder heads, which had been put in place without the usual precautions to prevent their working off. Had they done so, I would have carried in a crippled train, and changed the whole business of the road for some hours." "Then you consider quick and reliable hearing of importance to the locomotive engineer?" "No man," he replied, "has a right on an engine who has not all of his senses in perfect running order. The very feel of an engine when she is running is of the highest importance. A moment of rashness on the part of the engineer might in some instances lose him his engine."

The driver of a Hudson River Railroad locomotive said: "I was affected with deafness but once. There was some heavy artillery firing in Yonkers which lasted about ten minutes; my ears were very sensitive, made so, I think, through the habit of careful listening, and the moment I started up I felt there was something wrong about my hearing. At the end of ten days I put myself under the care of a physician. He found the trouble a considerable distance inside, and told me the concussion of the air had affected me. I was all right in ten days."

An instance in point is given in London *Lancet*, December 24, 1881, in which an accident occurred in Canonbury, England. Three trains collided in a tunnel, in which the signalman stated he gave a word of caution to the passing driver, which the latter asserts he did not hear. A similar accident happened in France, in October, 1880, fortunately without loss of life, but with a very great impediment to travel. It has been well expressed by Moos that, for the safety of the traveling public and for the prevention of accidents on railroads, not only a certain minimum of hearing is to be required, but both sight and hearing should be perfect, since sometimes reliance must be placed in one, sometimes in the other, and often in both combined. By such requirements only can danger and accident be reduced to a minimum.

CARBONATE OF TITANIUM.

BY A. B. LYONS, M.D., DETROIT.

Read before the Detroit Academy of Medicine, November 18, 1884.

GENTLEMEN OF THE ACADEMY:

The use of a class of remedies whose composition is either wholly the secret of the manufacturer, or else is deliberately misrepresented in the statements purporting to give an account of their composition, seems to be gaining ground among reputable physicians. I cannot but regard this as a misfortune to the profession. A few years ago there were few educated physicians who would attempt to defend the use of nostrums and secret remedies. Now I meet often with men who hold a high position in the medical profession who openly maintain that the physician ought not to be restricted in any way in the choice of his remedies. They take apparently high philanthropic ground, and say that we have no right to deprive our patients of the benefit they might obtain from the use of a secret remedy, merely on account of our ignorance of its constituents. They argue, further, that our knowledge of therapeutics is all or nearly all empirical; when we prescribe opium or potassium bromide, or any other article of the recognized materia medica, we do so merely because clinical experience has shown that patients in conditions similar to those existing in the case on hand have been benefited—not because we know how the remedy acts. Why, then, should we refuse to prescribe St. Jacob's Oil or Swaim's Panacea, if we have evidence that these nostrums, better than anything described in the pharmacopœia, will ameliorate our patient's condition? The reply has always been this: Manufacturers of nostrums are not in possession of any remedies unknown to the profession; their claims are based on falsehood, and if we are unable to obtain from known remedies the results we see produced by the combinations offered by charlatans, it is simply from our own ignorance of the subjects to which we are supposed to have given the closest study. To prescribe a quack medicine is therefore practically to admit that our own pretensions have been hollow and false.

For the pride of our profession, therefore, we should hold strictly to the requirements of our ethical code. But it is not necessary to place it on the ground of pride simply.

Notoriously the statements of charlatans are, to express it mildly, untrustworthy. In studying the effect of a quack medicine, too, we have to bear in mind the fact that the exaggerated statements which generally accompany the remedy have a powerful moral influence. Influences of this kind ought to emanate from the physician himself, and they must of necessity complicate all studies of the action of remedies; in the case of patent medicines they are not only a disturbing element, but one which must antagonize the personal influence of the physician. It is moreover so easy in most cases to penetrate the disguise under which well-known remedies masquerade as patent medicines, that the physician is inexcusable who prescribes the nostrum in ignorance of its real composition—and, certainly, equally inexcusable if, with such knowledge, he continues to prescribe it.

So long as the question relates merely to patent medicines and quack nostrums, the profession is as yet pretty well united—if not in practice at least in theory.

But within the last few years a new class of secret remedies has made its appearance and the old battle has to be fought over again, but with the foe now conspicuously displaying a flag of truce.

Pharmacy, we are told, is making such rapid strides in our age that the pharmacopœia is quite unable to keep up with the march of progress. Hence enterprising manufacturers come to the rescue, seizing upon each valuable discovery in therapeutics and embodying it in the form of a proprietary preparation. Then, too, remedies must be offered in this civilized age in a palatable form, and a preparation of any well-known drug, if only it possesses this recommendation, is hailed with satisfaction by physicians of the old school of practice who observe that their patients are drifting over to their homœopathic rival—because they do not have to take such nasty medicines. The large body of professional pharmacists who have endeavored to serve our profession by devising palatable and elegant preparations which should not be the property of any individual, but freely given for the good of humanity, find themselves put one side by the "enterprising" egoist who advertises iodia, or viburnum compound, or celerina or caulocoria—and a thousand other proprietary articles of which the formula is withheld. The properties and uses of preparations of this class are generally stated in language intelligible enough to the laity, and often the certificates of a score of distinguished medical professors are appended. You see no real difference between them and ordinary patent medicines—even in the prices, and yet the manufacturers distinctly state "For physician's prescriptions only"—it must be all right.

It is not surprising that physicians are perplexed, especially when all the medical journals, many of them conducted by men having an honored place in the profession, publish the advertisements of these secret remedies. To me it seems not difficult to decide where the discriminating line should be drawn. We cannot object to any preparation of acknowledged merit of which the formula is honestly published. When the formula is withheld we should refuse our sanction, especially when the preparation is offered under any fanciful name, such as papine, hydroleine, etc. By consistently adhering to such a course we should be very soon rid of the nuisance we all alike complain of, for manufacturers would find it suddenly to their interest to make common cause with scientific pharmacists, to the ultimate advantage of all parties. Any other course opens the way inevitably to frauds without number—and already we find instances not a few in which physicians have cut a sorry figure as dupes of the manufacturing charlatan. A short time since, a brazen attempt was made to impose upon the profession, as a great discovery, a medicinal preparation called "cohothedræ compound" (disregard of grammatical form is one distinguishing peculiarity of these innovators in pharmacy), a cure for typhoid fever, an *analysis* of the preparation by a distinguished chemist being offered in lieu of a formula. It makes little difference how often or how completely these frauds are exposed, the same medical journal which in its editorial columns may call attention, possibly once, to the exposure, continues week after week or month after month to publish advertisements of the preparation, often with a long list of references to eminent physicians. It seems to me that the only way we can protect ourselves against imposition is to put quackery in pharmacy on the same level as quackery in medicine, judge it by the same laws, and guard ourselves against it by adhering to the same ethical regulations. If a practitioner of medicine claims to have some remedy or gift of healing peculiar to himself, we withdraw from him our fellowship—rather let me say he places himself of necessity outside the pale of professional fellowship. The same principle applies equally to the man who claims to have a pharmaceutical secret. We are sure that such a man has not the interests of pharmacy at heart; it is unreasonable to suppose that his claim has any better foundation in fact than that of the medical charlatan. As one reasonably familiar with pharmaceutical products, I may go further than this and say that as a matter of fact these much advertised proprietary medicines do not evince either inventive genius or any high order of pharmaceutical skill.

After all this preface I come to the immediate subject of this paper. The September number of the *Medical World* of Philadelphia, contains the following notice of a new emmenagogue, which we quote *verbatim et literatim:*

"The pill used by the French women to produce barrenness I have found a valuable emmenagogue. Each pill contains two grains each of aloes and carbonate of titanium. They have never failed to bring on the menstrual discharge at the next epoch. Stoppage produced by cold is restored by this preparation in forty-eight hours. It is a most powerful direct stimulant to the sexual organs. I have no doubt that it would produce barrenness if persevered in. A married woman using the pill does not become pregnant.

"My usual formula is as follows:

"℞ Pulv. aloes (soc.).....
Carb. titan.....āā ʒi
Fiant pilulæ No. xxx. Sig. One pill three times daily.

"No particular nicety need be paid in regard to dose; from one to three pills may be taken *ter die.* They should be commenced from one week to ten days before the expected menstrual period. I have employed them in many cases of amenorrhœa, both in retention and suppression, and almost invariably with the utmost gratifying results. So certain are they to restore the uterine secretion when suppression does not depend upon organic disease that I almost regard them as a specific. Their action is peculiar; they seem to possess the power of restoring the secretion when suppressed, and of promoting it when deficient. This pill is, in fact, a female regulator. When the obstruction is from cold, these pills, with warm pediluvia, are sufficient. They operate kindly and without excitement; the patient hardly knows she is restored."

The communication is from Dr. M. M. Griffith, of Du Bois, Pa., who a few years ago brought to the notice of the medical profession crude petroleum mass as a therapeutic agent.

There is no intimation in the communication that the carbonate of titanium is not a perfectly well-

known compound, and possibly it may be that the name, at least, was not an unfamiliar one in Pennsylvania. Elsewhere in the United States, however, it had a strange sound. In the *Medical World* for October it was stated editorially that the carbonate of titanium was a rare drug, expensive and hard to obtain, and that it was not to be had in any of the large cities, but that a supply had been ordered from abroad, while a later notice stated that one firm in Philadelphia was prepared to furnish the article, at the moderate price of 50 cents per ounce.

I have left it to members of the Academy to form their own opinions in regard to the value of a drug which will inevitably produce barrenness in a married woman; but I cannot forbear quoting a few sentences from the editorial alluded to as indicating the drift of popular sentiment inside as well as outside of the profession.

"The article of Dr. Griffith in the September *World* has created a widespread interest in carbonate of titanium. We have received numerous inquiries concerning it. Telegraphic orders were received for it in New York from Boston, Louisville, and all parts of the country. * * We invite a report of further experience with this drug, *hoping that the gratifying results of Dr. Griffith will be verified.* Menstrual irregularities are becoming more and more prevalent, [among married women?], and any drug promising so much as carbonate of titanium should be fully tested."

Whether the six to eighteen grains a day of aloes prescribed would not of itself be sufficient to induce barrenness in a delicate female, I leave also to my hearers to judge.

My own attention was especially caught by the evident incongruity in the name itself. Carbonate of titanium to the ear of the chemist sounds about as plausible as pterygium of the iris to an oculist. I had a curiosity to see a chemical compound realizing such a singular freak of chemical affinity. Accordingly I awaited with some impatience the arrival of a supply of the drug. I have with me a sample of the article received with the written, not printed, label "carbonate of titanium." Any one familiar with drugs would guess at once that it was what formerly was known as iron sub-carbonate, but that compound, which is in reality ferric oxide, is tasteless, while this has a disagreeable ferruginous and bitter taste.

I found that a portion only of the substance dissolved in water, and this portion gave reactions for iron (ferrous) and for sulphuric acid. It consisted in fact, almost entirely of ferrous sulphate. After most of this salt was washed out, however, water continued to dissolve slowly something which had a bitter taste, and communicated to the water a strong orange tinge. The solution contained a vegetable alkaloid which proved to be sanguinarine, quantity too small to be easily estimated.

The residue insoluble in water was treated with hydrochloric acid, which dissolved it slowly, without effervescence, leaving only a few fragments of vegetable tissue, which were referred to the blood-root otherwise shown to be probably present, but were not positively identified. The solution consisted almost wholly of ferric chloride, showing that the insoluble substance had been in fact sub-carbonate of iron. Besides these principal constituents, the powder contained traces of calcium, potassium, sodium, silica, and titanic acid.

Quantitative analysis showed the composition of the powder to be approximately as follows:

Ferrous sulphate (cryst.)	54.8
Ferric oxide	40.5
Lime salts, Soda " , Potassa "	2.2
Titanic acid and Silica	1.0
Organic matter (blood-root) and loss	1.5
	100.0

Practically, therefore, it consists of a mixture of nearly equal parts of sub-carbonate of iron and sulphate of iron, partially exsiccated, with addition of an insignificant quantity of blood-root, and the "new" emmenagogue proves to be the old familiar combination of aloes and iron.

I am entirely ignorant of the source from which this powder was originally procured. It was sent to me by a leading wholesale drug house in New York, who undoubtedly were dealing in good faith. Possibly it has really come from France under the name it now bears, and that name may have been given it without any intent to deceive. But chemical names have a definite invariable significance, and when a substance is labelled titanium carbonate, you have a right to expect at least that it will prove to be a carbonate, and it is not unreasonable to feel some disappointment if titanium is so nearly absent that the blowpipe fails to show its presence. Yet it is to precisely such impositions as these that the medical profession lays itself liable when it pleads ignorance as an excuse for accepting the dicta of men who confessedly tell only a part of the truth. I do not know who is the responsible person in the present instance, but I resent, as a gross insult to the profession, the attempt, if such has been deliberately made, to pass off a mixture of well-known medicinal agents as a new remedy of extraordinary power, and that under a name so impudently false.

Since writing the above I have come across some additional items of information in regard to titanium carbonate. In the *Druggist's Circular* for October, 1884, we find S. W. D., of Mansfield, Pa., asking for a short account of the physiological action of carbonate of titanium. Observe that he does not inquire what it is or where it is to be procured, and note that he writes from a town or village not a hundred miles from Du Bois.

His query is promptly answered in the November number of the *Circular*—not by the editor, but by M. Milton, M.D., who writes from Du Bois, Pa., a townsman, therefore, it seems of Dr. M. Milton Griffith, and possibly, we may conjecture from similarity in name, a near relative.

From the reply we quote a few sentences, which leave no doubt about the character of the preparation, and settle conclusively the question what atti-

tude the profession must take toward the newly discovered "emmenagogue."

First, we are told that "titanium is found in several mineral species, in combination with magnetic iron ores. It is of a red color, and resembles copper. It is used to some extent in the arts." (Neither of the two latter statements, by the way, is true.) "Carbonate of titanium is made by double decomposition of sulphate of titanium and carbonate of sodium. It is a reddish-brown powder of a disagreeable, bitterish taste, partly soluble in water." This volunteered information is highly interesting, especially to one who has keenness enough to read between the lines. Its cunning blending of truth with fiction shows consummate genius in the perpetrator of this most daring fraud. Now listen. Properties: "It is tonic, alterative, and emmenagogue. It has produced abortion in many instances, and is commonly resorted to for that purpose by reckless women, and advised by still more reckless physicians. It seems to act without producing the very alarming symptoms usually attending such cases. It has the reputation of preventing married women from becoming pregnant, by its use in combination with aloes; it has surely done it in a number of cases that have come under my observation. It is generally used in domestic practice, in the form of a saturated tincture with whisky." How singular that a compound of the rare element, titanium, should first come into use as a domestic remedy, and that in the rural districts in Pennsylvania! "My attention was first called to it by its domestic use for purposes not altogether legitimate. It is a valuable remedy, and is worthy of further consideration."

Emmenagogue forsooth! Was there ever a more unblushing advertisement of a fœticide? It matters not that the drug is innocent of the active properties attributed to it; it will be bought for illegitimate purposes, and no other. In view of this fact, I am sure that no member of the Academy will regard the carbonate of titanium with any favor or indulgence, or will fail, indeed, on all fitting occasions to denounce it as an attempt to drag the profession into association with a class of criminals whose practices we utterly abhor and condemn.

A CASE ILLUSTRATING THE APPLICABILITY OF MURIATE OF COCAINE IN NASAL SURGERY.

BY JEFFERSON BETTMAN, M.D., CHICAGO.

(Read before the Chicago Medical Society, Nov. 11, 1884.)

The introduction of muriate of cocaine will no doubt create an era in ophthalmic surgery, the glowing tributes it has already received in Europe and in the East render irrefutable its qualities as a most efficient and innocuous local anæsthetic. Both Knapp and Gruening, of New York, have already tested its action on the nasal mucous membrane, and the results attained thereby fully equal those in anæsthetizing the eye. Due to the extreme scarcity of the drug in Chicago, it is only at a late hour that I have been able to obtain a small quantity and to apply it in practice. Although my actual experience, so far, has been limited to the case subjoined, the striking results attained are sufficient to fulfill my most sanguine expectations and to regard it as a most valuable adjunct in nasal surgery.

Dr. K., a physician of this city, has been under treatment for some time, suffering from asthma nervosum. Observations render it beyond doubt, that the asthma is purely reflex, induced by great hypertrophy of both inferior turbinated bones. Barring occasional obstructions to the free nasal respiration, but little discomfort is experienced during the day. A recumbent position, the warmth generated by the bedding are sufficient to produce reflexly a sudden turgescence of the turbinated bones, blocking up of the respiratory fissure, a serous discharge, and to finish the clinical picture, a culminating, violent attack of asthma. The hyperæsthesia of the nares is truly extraordinary, the simple introduction of the speculum is painful. The doctor has to exert all his self-control to permit the mere application of the probe to the parts. Endeavors had heretofore been directed to reducing the cavernous tissue by means of the galvano-cautery. The extreme sensibility would not permit of a thorough and prolonged application of the cautery, sufficient to act upon the deeper lying structures, so the results obtained were but partially successful. Last Saturday the doctor called at my office and we resolved to apply the muriate of cocaine prior to cauterization. Gruening,[1] according to his report, instilled the solution into the inferior meatus, the patient's head being placed accordingly.

The small quantity of the solution at hand, compelled me to adopt another method, which impressed me as being more expedient, and at the present not unworthy of consideration, as far more economical. A pledget of cotton, sufficient in bulk to occlude the inferior meatus, was soaked with 15 drops of a 4 per cent. solution of cocaine and placed in the left nostril, between the septum and enlarged turbinated bone. At intervals of five minutes, two or three drops were instilled upon the cotton *in situ*. At the lapse of ten minutes, the left narium was so anæsthetized as not to perceive the touch of the probe. However, as a precautionary measure, I only removed the cotton at the expiration of a quarter of an hour. The anæsthesia of the parts was now so profound, that the gentleman could hardly give credence to my assurances that I had thoroughly and vigorously probed the parts. In marked contrast was the undiminished sensibility of the right nostril; the introduction of the probe compelling him to cry out lustily. Previous cauterization had been made with the flat, surface electrodes, our aim, however, being to destroy the underlying cavernous tissue, we resolved to use a sharp, cutting point which had been made according to my design by Dr. McIntosh, of this city. The plates of the battery (a large Bruns battery

[1] *Medical Record*, November 1, 1884.

composed of two elements) were immersed sufficiently to produce a white heat when connections were made. The electrode was introduced and applied for fully three seconds ere calling forth any expression of pain on the part of the patient. As the doctor assured me, the discomfort was so minimum as hardly to be dignified with the title "pain." A striking proof of the almost total painlessness of the application, is the fact that our hitherto sensitive colleague permitted me to make another prolonged application at the same sitting. The action of the cautery was so thorough, that I am certain its ultimate results will far eclipse the benefit derived from the previous, more superficial applications. After a period of 25 minutes, the sensibility was fully restored. The doctor now began to experience the slight soreness that is always felt after cautery.

More extended observation, I trust, will tend to confirm the results already obtained and to strengthen faith in this remarkable anæsthetic. The range of its applicability is so wide, that it is nearly impossible to predestine its possibilities. It is certainly not irrelevant to state here, that its use in nasal surgery will probably enhance the popularity of galvano-cautery, and increase the field of utility of this most serviceable and effective mode of treatment.

113 Adams St.

UNILOCULAR OVARIAN CYST, WEIGHING NINETY-FIVE POUNDS, SUCCESSFULLY REMOVED.

BY GEO. E. RANNEY M.D., LANSING, MICH.

The following case is one of interest for a number of reasons, and especially so on account of the size of the tumor, which, as far as I know, is the largest of the kind ever removed, while few tumors of any variety have exceeded it in weight. A case (occurring in a negro woman) of fibro-cyst of the uterus, weighing 130 pounds, including seventy-one pounds of fluid drawn from the cyst, six days before the death of the patient, together with the solid portion of the tumor, and twenty-four pounds of fluid removed after death, is reported by Dr. C. C. Stockard, of Miss., in the New York *Med. Record*, Aug. 16, 1884, concerning which he says it is, as far as he can learn, the largest one on record. In this case the question may arise as to whether the most of the twenty-four pounds removed on post-mortem did not accumulate during the six days following the tapping.

Thomas, on the Diseases of Women, p. 543, second edition, says: "The unilocular tumor consists of simple dilatation of a Graafian follicle. This may go on until the size of the uterus in the eighth or ninth month of pregnancy is reached. Kiwisch has met with one whose contents weighed forty pounds, but such a development is exceedingly rare, as they seldom remain simple after passing the dimensions of an adult head." Further on he says of multilocular cysts: "The size to which these cysts will grow is truly wonderful. It has been already stated that unilocular or monocystic tumors rarely attain a great size as such; they become, as they increase, multilocular or polycystic, and then their growth may become excessive. Instances are on record of tumors containing over one hundred pounds of fluid."

Our distinguished countryman, Dr. Emmet, in his "Principles and Practice of Gynæcology," second edition, p. 826, reports the removal of a multilocular tumor weighing seventy-nine pounds, and adds: "This was the largest ovarian tumor I have ever removed."

The case in question was in the person of Mrs. T., of Grand Ledge, Mich., a native of Michigan, æt. 55 years, married, and the mother of two sons, aged respectively 30 and 34 years. Her frame is below medium size, and up to 40 years of age she never weighed over 90 pounds. At about this age she became very fleshy, and weighed over 200 pounds. Her menopause occurred at the age of 45 years. At about the age of 49 years she discovered that the enlargement of her abdomen was more marked, and she experienced an uncomfortable fullness of it, and thought she felt through its thick walls an unnatural growth or accumulation, which led her to think she required medical assistance, and accordingly she selected her advisers from a "covey," or "brood," of ignorant homœopathic practitioners, such as afflict most of the towns of our beautiful State, where they are hatched out in as little time as it would take an egg to incubate, and where the law recognizes no difference between them and the most skillful physicians.

Her case was diagnosed by them as one of abdominal dropsy, and the patient labored under that delusion, and was treated for dropsy, up to within six weeks prior to my first visit, when Dr. Wright, of Grand Ledge, an intelligent practitioner, was called to see the case. He reports that he found her in a general anasarcous condition, which anasarca, by appropriate treatment, became somewhat diminished. About one week before I saw her, and nearly two weeks before the operation, the doctor had attempted paracentesis with a medium-sized trocar, but only succeeded in drawing away a small quantity of straw-colored fluid and a thick gelatinous material of about the same color.

I was called to see her, with Dr. Wright, Oct. 2, 1884, and found her truly a sight to behold. Her abdomen was enormously distended, and its walls firmly stretched over what I diagnosed at the time, and what subsequently proved to be, a monocystic tumor of left ovary. The tumor had pressed the rectal muscles apart at the umbilicus, causing a hernial protrusion, which looked toward the floor as she stood up, so greatly was the abdomen above it distended. There had been a constant external dripping from the puncture made with the trocar—a circumstance disagreeable to the patient and attendants.

The tumor was so large and cumbersome that the patient had been, for a long time, unable to lie on her back, and for years past, in order to change from one side to the other in bed, she had to be raised, when she would stand upon the floor and approach her bed from the opposite side.

By digital examination per vagina, I found an œdematous condition about the womb, and by carrying my finger higher up, could recognize the harder, characteristic resistance of the tumor. Examination of uterus with finger and sound revealed nothing abnormal. The œdematous condition of pudenda and protrusion of abdomen rendered specular examination impracticable had it been desirable.

The walls of the abdomen would glide over the tumor, to a limited extent, and I was led to hope, notwithstanding its long existence and extraordinary size, that its adhesions were not extensive, as is generally the case in multilocular cysts. Desiring to ascertain of what the tumor was composed, and, if possible, to determine whether the tumor was monocystic or polycystic, I drew through an aspirating needle, at a site somewhat remote from the previous tapping, a substance small in amount, in color and consistence like that previously drawn by Dr. Wright, and proving, on examination, to be almost wholly albumen. The trouble was seriously telling upon the patient's health. The weight of the tumor was gravely telling upon her strength; impairing seriously her digestion and assimilation, and thereby lessening her flesh; its pressure upon the blood vessels, and consequent anasarca; its pressure against the ribs and diaphragm rendering respiration difficult and short, were conditions which rendered a practical illustration, in her case, of Dr. Holmes' remark, "That the latter stages of ovarian dropsy should be prolonged over months instead of weeks would be a matter of regret rather than congratulation." Indeed the patient expressed the belief that death would soon come to her relief, and she longed for that eventful time if she could not be relieved by an operation, which she not only expressed a willingness to submit to, but begged me to perform, regardless of its dangers, which had been greatly enhanced by rupture of the ovarian cyst, at the point of tapping, which permitted a discharge into the peritoneal cavity, which discharge enveloped the organs of the abdominal and pelvic viscera.

Accordingly, Wednesday, Oct. 8, 1884, was the time agreed upon for the operation. On the day previous the largest room in the house, which was carpeted and furnished, was tightly corked, and disinfected with sulphurous acid gas. The morning of the operation I thoroughly sprayed the room with a solution of carbolic acid. The family had recently moved into the house which is comparatively small, and unavoidable delay in making necessary repairs, rendered the house incommodious. I selected for the operating room an unfinished kitchen only covered by the roof, the walls being neither lathed or plastered. The day was a cloudy one, and though the room was poorly lighted it was well "ventilated." This room I also thoroughly sprayed. Every assistant was requested to bathe before coming to the house, and on their arrival they washed their hands in carbolized water and sprayed their clothes. Every instrument and thread was disinfected, as were all the dressings. The spray was continued during the operation, and the temperature of the room kept at 92° F., by means of the kitchen stove. I am under great obligation for the efficient and able assistance in operating rendered me by Dr. Wright, who visited her daily before, and since the operation, also to Dr. Davis, of Grand Ledge, and especially to Dr. Jenks, of Detroit, and Dr. Post, of Lansing.

After etherizing the patient, who had to lie on her side, as previously stated, we made the abdominal incision in the usual place, finding the walls quite thick, owing to its fatty and œdematous condition. The incision was made through the site of the tapping, finding the sac at this point, which was friable, ruptured, permitting the escape of considerable of its contents into the peritoneal sac as previously mentioned.

By the ordinary means of exploration we found adhesions, though not extensive, which I readily broke up with my hand, and though causing at one time terrific bleeding, I was able to promptly control it by pressure and ligature. The pedicle was patulous and broad when compressed, though not large, as a whole, it was very vascular and supplied with three or four quite large arteries. The pedicle was held by hand and compressing forceps, while a double, stout, braided silk ligature was passed through it, carefully avoiding the large blood-vessels, looped on itself and firmly tied. The stump was then severed, fine silk ligatures applied to the ends of the arteries, and the end of the stump seared or cooked with a hot iron, the end of the stump cleanly wiped and dropped into the abdomen.

The remainder of the escaped material of the tumor was carefully removed by hand and sponge, from the abdominal and pelvic viscera.

The peritonæum was little if any inflamed. The long and persistent pressure of the tumor against the peritonæum, however, had caused a wonderful thickening of it, which was found studded with growths the size of a kidney-bean, which protruded, presenting a remarkable appearance, some of them looking like fatty material and others like pieces of raw beef, and were susceptible of being pinched off by the thumb and finger. The tolerance of rough usage which the peritonæum had acquired, accounts, I believe, in a large degree for the almost total absence of peritonitic symptoms, before and following the operation. The abdominal wound was closed with interrupted wire sutures, the disinfected gauze, mackintosh compress and flannel binder applied and the patient placed in bed in the room previously prepared for her. No drainage tube was used. The time consumed in the operation was three hours and twenty minutes. The tumor had the enormous weight of 95 lbs.

I remained with the patient twenty-four hours following the operation, during which time she thoroughly rallied and expressed surprise that she was alive and that she was able to lie on her back, which for years previously she had been unable to do. No nausea or vomiting has followed the operation. At 4:30 o'clock P.M., about three hours after the operation, her temperature was 99° F.; pulse good. At ten the same night the temperature had come up to 101½°, pulse full and strong. The bladder by

that time had become full and I drew from it a pint or more of amber-colored urine.

Oct. 9, at 6:30 A.M. the day following, temperature was 99½°, pulse 116 and quite good; slept well during the night; looked not bad, felt cheerful and asked if she could have something to eat; says she feels a little "wind pressure" in lower part of bowels. At 10 A.M. passed a pint of urine without the use of catheter; temperature 100½°; at 8 P.M., temp. 100°, pulse 120.

Oct. 10.—9 A.M. Temp. 98¼°, pulse 100; at 12 M. passed gas from bowels; temp. 99¼°.

Oct. 11.—9 A.M. Temp. 99¼°, pulse 100; continues to pass gas from bowels; at 9 P.M., temperature 99¾°.

Oct. 13.—12 M. Temp. 100°, pulse 100, after dressing wound for the first time since the operation. The peritoneal wound healed by first intention throughout its full extent, a fortunate circumstance, as it prevented the fluids entering the peritoneal cavity from the non-union of the anasarcous tissues external to it.

Oct. 14.—Dr. Post visited the patient in my stead, finding her about as she was the day before, the wound suppurating, but healthy.

Oct. 15.—About the same; gas continues to pass freely from the bowels. At 11 A.M., temp. 98°, pulse 96, full and softer than previous. The tongue, which has worn a white fur and been somewhat dry, with red edges, is now more moist, and its coating diminished. She says she would like to sit up. I removed all the stitches except one, and strapped the wound with adhesive plaster. Up to this time the dressings were made under the carbolized spray. Thus far she has taken nothing on her stomach excepting water. She has thus far been nourished and stimulated by enemata, composed of beef tea, milk, brandy and sulphate of cinchonidia.

Oct. 16.—Temp. 98½°, pulse 108. She took a little milk on her stomach, which disturbed her somewhat, so it was discontinued.

Oct. 17.—Bowels moved naturally. Temp. and pulse same as yesterday. Gave her some peptonized milk, which she enjoyed.

Oct. 18.—Temp. 98°, pulse 100, and a little "jerky," and not quite satisfactory. Continued the milk whey and enemata.

Oct. 19.—Temp. 99°, pulse 108 at 12 M.

Oct. 20.—Temp. 99°, pulse 108 at 12 M.

Oct. 21.—Temp. 98°, pulse 102. Ate two crackers contrary to orders. No perceptible result followed.

Oct. 22.—About the same. From the last date to the present, appetite and digestion increased; strength improved. She has been cheerful all the time, and slept about twelve hours per day. No tympanitis existed since the first two or three days, though she has continued to pass gas freely from the bowels. Up to the time she commenced to take food on her stomach, she had two or three transient spells of vertigo. As she became better nourished, no further symptoms of the kind manifested themselves, and her strength gradually improved, when, on October 24 and 25 she sat upon the commode to defecate. Sitting up had not been permitted by me, and I interdicted it as soon as I learned the fact. Her appetite has been, and is, voracious with slight interruption. Besides the food previously mentioned, she has been allowed eggs, also beef peptonoids, prepared by Reed & Carnick, of New York, and she has at times broken over my strict injunctions by eating more or less starchy food, when, finally, on October 30, she ate "sour krout" and drank sweet cider! These latter articles forcibly reminded her that she "had a stomach," and her bowels were rendered uncomfortable and moved slightly a number of times. Ten drops of laudanum injected into the bowels relieved the distress she experienced, and though her pulse seemed a little excited and flatulence increased, she declared that she felt firstrate.

The external wound has nearly healed, her temperature and pulse nearly normal; her tongue almost natural; strength good; countenance bright, and at the present writing it rests her to sit up a little while at a time, and it seems as though all danger had passed. It is worthy of remark that immediately following and since the operation, her kidneys have been quite active and that the dropsical condition of her limbs, which had rendered them two or three times their natural size, rapidly disappeared. No severe shock followed the operation; no hæmorrhage, peritonitis, septicæmia, phlebitis or abscess occurred. In short, with the exception of one or two days, which dates I omitted to note, she has had no untoward symptoms, and these exceptions were the result of disturbed digestion and assimilation from indiscretion in eating.

Since writing the above the patient has substantially recovered, she being able to walk, to ride out with comfort, and to do light work.

Lansing, Nov. 22, 1884.

SOME OBSERVATIONS ON THE TOXIC EFFECTS OF CHROME ON THE NOSE, THROAT AND EAR.

BY JOHN N. MACKENZIE, M.D., BALTIMORE, MD.,

Surgeon to the Baltimore Eye, Ear and Throat Charity Hospital.

Read in the Section of Ophthalmology, Otology and Laryngology of American Medical Association, May, 1884.

Among the many inconveniences from which those directly engaged in the manufacture of chrome suffer, the most prominent, perhaps, consist of a group of symptoms referable to the respiratory tract, and especially the nasal cavities and their dividing septum. In the chrome factory of this city, the workmen employed in the chambers where the bichromate is made, almost invariably acquire perforation of the cartilaginous portion of the latter from the irritating and corrosive action of the fumes and floating dust evolved during the chemistry of its manufacture. This destruction of the cartilaginous septum appears to be the most prominent anatomical lesion, and occurs with such striking frequency, that it may be looked upon as a characteristic and constant sign of this particular form of chrome poisoning. Perforation occurs, as a rule, with great rapidity; generally in a

few days after exposure to its exciting cause. I am told, by one of the workmen who has been engaged in the factory for over fifteen years, that extensive destruction of the cartilage sometimes takes place within 24 to 48 hours. It is commonly preceded by general congestion of the mucous membrane with more or less epistaxis, or by the symptoms of a well-defined coryza, such as obstruction of the nares, heaviness of the head, discharge of limpid fluid, sensation of foreign body in the nasal passages, reflex acts, etc. The mucous covering of the septum is quickly destroyed and the cartilage laid bare. Necrosis of the latter soon follows, and a communication between the nostrils is established by a gradual corrosion and breaking down of the septum, which produces finally a round or oval perforation. Or, the same result may be accomplished by the exfoliation of necrotic plates or layers of the cartilage, presenting the appearance as if they had been punched out by instrumental aid.

When the mucous membrane is destroyed, a crust forms which becomes closely adherent, and beneath which the corrosion of the septum proper goes on. After perforation takes place, there is also a tendency to crust-formation about the edges of the artificial opening. It is possible that the crusts may act to a certain extent as protective agents, thereby preserving the edges of the cartilage against the invasion of the floating particles and hence limiting the further progress of the corrosive action. The latter process seems, in the vast majority of cases, to be confined to the cartilage, and very extensive destruction of the latter may occur without change in the external appearance of the nose. The most frequent seat of perforation is the antero-inferior portion of the cartilage; or, in other words, that portion which is most directly exposed to the action of the irritant particles. The perforation itself varies greatly in size. I have seen almost complete destruction of the cartilaginous septum, nothing remaining but the merest rim of tissue to support the fleshy structures of the external nose.

Although this is its most frequent seat, the ulcerative process is not confined to the septum, but is occasionally met with in other portions of the nose, as the turbinated bodies and nasal pharynx. It is more likely to occur in the latter situation, as the voluntary removal of foreign substances from this cavity is more difficult than their expulsion from the nasal chambers. Ulceration, moreover, is also more likely to persist in the former than in the latter situation. The lower pharynx is also sometimes the seat of more or less clearly defined ulceration, and the same is probably true of the larynx, although I am unaware of its occurrence in the latter. The condition of the lower respiratory tract generally found is that of inflammation, characterized by intense redness, moderate swelling, with tendency to inspissation of secretion. These appearances are found as far down the trachea as the laryngoscopic view extends. In fact, the mucous membrane of the entire naso-bronchial tract is intensely hyperæmic, more or less swollen, and presents at various points evidences of capillary hæmorrhages and small extravasations of blood. These appearances are more pronounced in the respiratory region of the nose. Ulceration also attacks the hair follicles in the nasal vestibule, causing a dryness and itching, with falling out of the vibrissæ.

As the ulcerative process in the nose and retro-nasal space advances, the secretion becomes muco-purulent, and portions of the necrotic tissues are expelled either in shreds or as a fine detritus mingled with the greenish-yellow discharge. In some the nasal flux is inconsiderable, and perforation of the cartilage may occur without the knowledge of the individual. There is often a great tendency to the formation of hard, laminated, or tough, leathery crusts, which adhere to the structures with great tenacity, and whose expulsion is attended with considerable difficulty. They may be expelled through the anterior nares, or may fall into the lower pharynx, and be expectorated. Occasionally detachment occurs during sleep, the crust entering the laryngeal vestibule and giving rise to suffocative paroxysms.

Accompanying the catarrhal symptoms, there is a sensation of heat or burning in the nose and throat, and sometimes intense headache which is referred to various portions of the cranium. The sensation experienced is sometimes described as that of a bubbling or boiling as of water in a cauldron, in the vertex, and constitutes one of the most annoying features of the case.

Attention has already been called to the inspissation of the secretion and its tendency to crust formation. Notwithstanding such disposition, however, and the profuse and purulent character of the discharge, there is little, if any tendency to the development of a condition of ozœna. Fœtor is, so far as my experience goes, always absent, or at least, is never a prominent symptom. This I consider a point of especial interest. The absence of odor here is certainly in a measure due to the fact that the agent which excites the discharge, at the same time destroys the forms of life, upon the presence of which the fœtor of such conditions is supposed to depend.

The corrosive action is not always limited to the mucous membrane of the nose and throat. Purulent inflammation of the drum cavities also occurs, with perforation of the tympanic membrane and the consequent development of otorrhœa. This is in part doubtless due to extension through the Eustachian tubes; but it is conceivable that the membrane may become corroded by direct contact of the bichromate dust.

There appears to be a decided limit, however, to the destructive action of the corrosive agent on the cartilage and mucous membranes, a certain self-limitation of its corrosive power, which agrees with the known comportment of the poison in the presence of organic matter. For, as is well known, every molecule of matter with which each molecule of chromic acid comes in contact, is not only immediately destroyed, but the acid, in accomplishing such destruction, is itself rendered further innocuous by its conversion into an insoluble oxide of chromium.

Experimental chemistry has chiefly concerned it-

self with the investigation of the toxic effects of chromic acid and its salts upon the nervous system, upon the stomach, intestines and kidneys, and its corrosive action upon the external surfaces, and little attention has been bestowed upon its action on the respiratory tract. Gmelin, of Tübingen, who was the first to study, experimentally, their poisonous properties, found that the bichromate of potassium, when introduced under the skin of a dog, produced on the fourth day difficulty of breathing and deglutition, and the post-mortem revealed general inflammation of the respiratory tract, with bloody and fibrinous effusion.[1] Some years later Berndt, in the course of a series of experiments with the same salt, found redness of the windpipe in a guinea pig and pigeon poisoned by its introduction into the stomach.[2]

The only observations in regard to perforation of the septum that I can find are contained in an article by Bécourt and Chevallier in the *Annales d'Hygiène*,[3] and in the brochure of Delpech and Hillairet.[4] The latter observers report cases where extensive destruction of the cartilaginous septum existed. Both unite in the observation that the sense of smell remains intact, and that those who take snuff are exempt from nasal trouble, an immunity which they explain by the frequent cleansing of the nostrils which the use of that article necessitates, and the protective layer which it forms in the nasal passages.

My own observations in regard to the perforation agree in the main with those of the above writers, of whose investigations I was ignorant two years ago, when the subject was first brought to my notice. The persistence of the sense of smell is doubtless due to the fact pointed out above, that the olfactory region is very rarely involved.

The only instance of ulceration of the throat that I have found is that reported by Heathcote and referred to by H. Rousseau in his Paris thesis on chromic acid[5], whilst so far as I am aware, the perforation of the tympanic membrane and other phenomena referable to the ear have never been heretofore observed.

The injurious effects upon the mucous surfaces is most probably due to the corrosive action of minute particles of bichromate of potash which fill the atmosphere during the conversion of the neutral salt into the bichromate by means of boiling sulphuric acid.

It would appear, then, from the above, that the toxic action of the salt on the mucous membrane of the respiratory tract may be produced by direct inhalation, by the introduction of the drug through wounds of the skin, or its absorption through the mucous membrane of the digestive tract.

The extensive use of the salts of chromium in dyeing and painting confers upon their toxicological relations a manifest interest and importance. For not only do those engaged in their manufacture come within the range of their injurious influence, but the host of articles for the coloration of which they are employed may become agents of possible harm wherever they are circulated and in the many forms in which they are applied. An additional importance, too, in this regard, attaches to the introduction into the system of the poison through abrasions on the cutaneous surface and its toxic effects, when thus introduced, upon the mucous surfaces of the respiratory tract. It is accordingly well to bear in mind the possibility of such an occurrence in estimating the etiological factors in obscure and intractable inflammatory conditions of the respiratory apparatus. In this connection I recall a case of virulent nasal discharge, whose causation was vainly sought for among the ordinary diseases of the nose, and whose management was a failure, until the accidental discovery that the patient dyed her hair with a preparation containing a salt of lead, and a timely conversation in her hearing concerning the injurious effects of such preparations in general upon the system.

The medico-legal question may, furthermore, arise, as to whether a given ulceration of the nasal cavities with perforation of the septum be due to poisoning by chrome (or an allied substance), or whether it be an accident of constitutional syphilis. In coming to a conclusion upon this point, the absence of ozœna, or fœtor, the effect of simple medication, the self-limitation of the process, and, when the ulceration is no longer active, the absence of deformity of the external nose so characteristic of syphilis, may be looked upon as important data in establishing a differential diagnosis.

The marked and rapid corrosive effect upon the cartilaginous septum, suggests, moreover, a certain caution in its use as a therapeutic agent in affections of the overlying mucous membrane, and the careful protection of that structure when the caustic is employed in other affections of the nasal passages.

[1] Vide Christison, Treatise on Poisons; Bell's Med. Lib., Phila., 1845, p. 385; and Ducatel, Balto. *Med. and Surg. Journal and Review*, 1833, vol. 1, p. 44.

[2] De Nonnullis Chromii Praeparatis. Diss. Inaug. Toxicolog, etc. Vratisl. 1837 (Résumé in the *Med. Zeitung*, Berlin, 1838, Nos. 24 and 25).

[3] Mém. sur les Accidents qui Atteignent les Ouvriers qui Travaillent le bichromate de Potasse, Annales d'Hygiène Publique, etc., 2 S., tom. 20, p. 83. Paris, 1863.

[4] Mém. sur les Accid. Auxquels Sont Soumis les Ouvriers, etc. Paris, 1869. Baillière et Fils.

[5] Contribution à l'étude de l'aerde chromique, etc. Thése de Paris, 1878. P. 64.

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

ANTIPYRIN.—Dr. Max Jahn, of Grevesmühlen, in the Deutsche medical zeitung (*Med. Press*), reports a case of puerperal fever treated by antipyrin "with surprisingly good results." The preparation was given in 2 grm. and 1 grm., hourly doses, and then a pause. The patient belonged to the better classes, and was a chlorotic 2 para. The first dose relieved the tormenting pain of the peritonitis, not to return for five or six hours. This effect was spontaneously remarked by the patient as occurring on every occasion. The same relief was not obtained by a subcutaneous injection of 0.015 grm. of morphia. After the first series the temperature fell, two and a half hours after the first dose, from 107.2° to

101.3° F., without any perspiration, and from this to 100.1° F., not to rise again for twenty-one hours. The second series was given when the temperature had again risen to 104.8° F., after which it fell to 100.7° F. Other treatment—calomel, ergot, injections, etc.—was not suspended during the antipyrin treatment. The drug had a decidedly favorable action on the sensorium, ramblings ceased, the fixed stare, and all those appearances that give form to the facies puerperalis vanished, and repeatedly for longer or shorter periods a calm sleep came on. The pulse rate kept up to from 112 to 140, until the pelvic peritonitic symptoms abated, when it fell to 80 or 100. Collapse was never observed. No effect was observed on the meteorismus.

To this case by Jahn, the annotator of the *Press*, adds his experience in two cases: One a case of exomphalus with adherent omentum, on the second day after operation the temperature rose to 102, when antipyrin was given as by Jahn. By the time the last dose of the series was given the temperature had fallen to normal. The medicine was now given in 15 grain doses every four hours, and the temperature did not again rise. The case did well. The second case was one of encysted dropsy of the peritonæum from peritonitis, in a girl, æt. 18. The cavity was opened and drained. On the third day, as in the first case, the temperature rose to 102, when antipyrin was given as before, the temperature falling steadily to normal, at which point it remained as long as the supply of the drug held out. This patient is convalescent, but weak.

LEMON JUICE AS AN ANTIPYRETIC.—Dr. Lanchlan Aitken, of Rome, writes, in the *British Medical Journal*, very favorably of the antipyretic value of lemon juice, which he has given to advantage in cases of enteric fever, enteric fever complicated with malaria and typho-malarial fever. This remedy was first brought into notice about a year ago by Dr. Maglieri in *Il Morgagni*, who got his information from his uncle, a farmer, who had frequently used it to the benefit of some of his farm laborers, the victims of malarial affections which had resisted better known means of cure; and from his own experience in chronic malarial cachexy, and pernicious malarial fever. At the request of Professor Tommasi-Crudeli, the remedy was adopted by a large landed proprietor near Rome, and the results obtained by him, too, in severe cases of malarial infection, were very surprising, and were mentioned in a letter to the Minister of Agriculture and Commerce. In the *Morgagni* for March, 1884, Dr. Dominico Arzillo gives some details of cases in which he had used the lemon decoction with excellent effects, and writes in enthusiatic terms of the simplicity of the cure and of its superiority to quinine.

Its preparation is as follows: A freshly gathered and unpeeled lemon being taken, cut into thin slices, put in three teacupfuls of water, and boiled down to one teacupful in a clean earthenware jar; this quantity of the decoction was then allowed to stand over night in the open air, and given the first thing in the morning, after the liquid had been separated from the rind, pulp and seeds by careful filtration and compression just before it was drunk.

The effects observed by Dr. Aitken have been as good as those of large doses of quinine. It has never seemed necessary to give the decoction prepared from more than one lemon daily; but there can be no reason why more than one draught should not be taken in the three hours if required. It was noticed that freshly plucked lemons had more apparent effect than those not quite recently gathered, a serious drawback, in the meantime, to the use of the decoction in countries where there are no lemon trees. What the active principle is, is as yet quite uncertain, although it is obvious that it is not citric acid. The alkaloid principles, hesperidine and limonine, said to be obtained from lemons, are quite unknown to medicine; and no experiments have been made to ascertain their physiological properties.

MEDICINE.

ON COBRA POISON.—Dr. R. Norris Wolfenden (*Indian Medical Gazette*), has been conducting some investigations into the chemical nature and physiological action of cobra poison. He gives credit to Dr. Wall's book on Indian snake poison as being very valuable, and refers to Weir Mitchell and Reichart, but is ignorant of the scope and character of their investigations. His researches led him to the conclusion that cobra venom chemically consists of 1. A globulin venom. 2. A serum albumen venom. 3. Traces of other albumens. 4. Salts, chlorides, phosphates and sulphates. 5. Water. He found no proteid body resembling a peptone. Morphologically the glands secreting the poison resemble parotids, and the resemblance is still more striking from the occurrence of a diastatic ferment in the secretion (which was long ago spoken of as analogous to ptyalin by Burk and others). The venom is generally thought physiologically to be modified salivary secretion, consequently we should scarcely expect to find peptone present.

Physiologically he recognizes in cobra poison two distinct venoms. 1. Cobra globulin venom. 2. Cobra albumen venom. They exist probably in different proportions in different secretions, but these two are always present. The globulin venom is destroyed by high temperatures, but the albumen venom is not so affected. The globulin venom poisons the respiratory center, producing no paralysis of muscles; the albumen venom does not effect the respiratory center, but produces marked and progressive motor paralysis. He does not agree to the generally conceived opinion that cobra venom exerts no influence upon the blood; his experiments show that cobra venom decolorizes, by driving out the hæmoglobin from a large proportion of the discs, and breaks up a large number of the white discs completely, filling the plasma with minute granules. He does not think the bacterial forms, which are present in such large numbers in cobra venom, have anything to do with the activity of the venom. When recovery takes place from poisoning with a dose of the poison insufficient

to kill, it is not improbable that a condition of blood poison may supervene secondarily. The globulin venom is slower in its action than the serum albumen and a longer period often elapses after the injection before symptoms supervene or terminate life. The globulin is very deadly, and when once the symptoms have supervened asphyxia rapidly ends the existence of the animal.

Poisoning by Canned Foods.—Dr. John G. Johnson, of Brooklyn, N. Y., having had six cases in his practice of corrosive poisoning, according to his diagnosis, from eating canned tomatoes, he presented a paper on this subject before the Medico-Legal Society, of New York, and the *Boston Medical and Surgical Journal* gives the following as the general conclusions of his paper:

(1.) The six cases were not cases of sickness from spoiled tomatoes. (2.) They were cases of corrosive poisoning from muriate of zinc and muriate of tin. (3.) This poisoning amalgam must be abandoned. (4.) Exemplary damages "at the discretion of the jury," will be sustained by the courts for this reckless tampering with human life in using a dangerous means when a safe one could be used. (5.) The canners have only themselves to thank for the present pause in their business, for they have persisted in this dangerous plan, knowing it was dangerous. (6.) Every cap should be examined, and if two holes are found in it send the can at once to the Health Board, with the contents, and name of the grocer who sold it. (7.) Reject every article of canned food that does not show the line of rosin around the edge of the solder of the cap, the same as is seen on the seam at the side of the can. (8.) Reject every can that does not have the name of the manufacturer or firm upon it as well as the name of the company and the town where manufactured; "standards" have all this. When the wholesale dealer is ashamed to have his name on the goods fight shy of him. (9.) Press up the bottom of the can; if decomposition is commencing, the tin will rattle the same as the bottom of the oiler of your sewing machine does. If the goods are sound it will be solid, and there will be no rattle to the tin. (10.) Reject every can that shows any rust around the cap on the inside of the head of the can. If housewives are educated to these points then muriate of zinc amalagam will become a thing of the past, and dealers in "swills" have to seek some other occupation.

Experimental and Clinical Investigations into Bright's Disease.—Dr. Mariano Semmola (*Archives de Physiologie*) thus sums up the results of his study of the subject:

1. Each organism has a certain orbit of nutrient activity for the albuminoid substances as well as for the hydrocarbonaceous substances.

2. The albuminoid substances, as well as glucose, which present themselves in the circulation, in a proportion superior to the degree of activity of the orbit, are forcibly eliminated by the organism as foreign and useless substances by all the emunctories, and particularly by the urine. Albuminuria, in this sense, constitutes a simple act of organic epuration, to which the kidneys contribute, without any necessary epithelial alteration.

3. One of the most important physiological conditions for the accomplishment of the activity of this orbit of assimilation and combustion resides in the activity of the respiratory functions of the skin.

4. When the activity of the skin is diminished or suppressed, the albuminoids which appear in the blood-serum either do not attain, or do not preserve, their necessary degree of non-diffusibility, and hence become incapable of accomplishing their biological mission. There is necessarily, in consequence of this, an elimination of the albumen by the urine, and by all the other epurative emunctories of the organism. It follows, therefore, that the formation of urea is diminished because there is a diminution in the activity of the combustion of the albuminoids.

5. The want of assimilation of albuminoids furnished by alimentation may be produced by two initial conditions, that is to say: 1st. The quantity of albuminoids introduced being more than the orbit of respiratory activity proper for each individual, and consequently there exists an albuminuria by absolute hyperalbuminosis of the serum of the blood; 2d. While there should exist a perfect equilibrium between the quantity of albuminoids ingested and the activity of assimilation proper to each organism, if, from accidental and pathological causes, a diminution of the respiratory activity of the skin takes place, naturally that equilibrium is disturbed, and the same quantity of albuminoids that was formerly completely assimilable and combustible becomes necessarily in part inassimilable, and a *relative* hyperalbuminosis occurs. In the first condition the albuminuria is accompanied by the physiological maximum of urea proper to the organism in question, whilst in the second case, with the albuminuria there is observed a diminution of the urea in proportion to the physiological mean of the twenty-four hours.

6. This chemico-molecular alteration of the albuminoids, which we cannot detect chemically with the reactions that we possess at present, is characterized by their pathological diffusibilities, which deprives them of the power of accomplishing their biological function. It is from this fact that Dr. Semmola applies the name of *hetero-albuminæmia*.

7. Among the functions which exert a great influence in producing this complete chemico-biological evolution of albuminoids through the organism, the cutaneous functions must be placed in the first rank. But there are, of course, other influences, such as the liver, the ganglionic nervous system, etc., which require further and special investigation.

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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GASTRIC DILATATION IN CHILDREN.—Ectasis of the stomach appears to have received more than usual attention of late on the part of French clinicians. It is a subject worthy of careful consideration in this country as well; for, whether the malady be more prevalent in Europe than here or not, it doubtless exists many times when our practitioners fail to detect it, contenting themselves with a diagnosis which recognizes only a symptom, not the primary lesion. This may be owing in part to the difficulty often attending its detection, and also in part to the mask the disease assumes of symptoms referable to the heart, skin and nervous system. Even when on the lookout for dilatation of the stomach in adults, few practitioners, we think, would expect to find it in young children. Yet Dr. J. Comby, in *Archives Générales de Médicine* for August and September last, presents some interesting features of the disease as studied in fifty cases which occurred in his dispensary practice. He found it associated with rachitis; not, however, as an effect, but as a cause, itself being the result of improper and excessive feeding. Although occurring in children for the most part, it may yet be found in infants at the breast as well as in those reared with a bottle. In such cases, the distension of the stomach is produced by the ingestion of a too great bulk of liquid nourishment. In other instances, alimentation of an improper kind is instrumental in its causation. The symptoms are dyspepsia, convulsions, insomnia, urticaria, eczema, bronchitis, and manifold other functional disorders. These symptoms may occur alone or together. Dr. Comby regards the prognosis as serious, since the dilatation may persist until puberty, or even until mature years. As measures of prophylaxis he recommends that bottle-fed infants be put to the breast, and that all infants, whether nursing or not, be fed at regular intervals and restricted as to amount. Infants should not be weaned too early nor too quickly, he thinks. If ectasis of the stomach already exists, the food should consist exclusively of milk in case of infants, while older children should be allowed solid food only. Irrigation of the stomach is sometimes advisable. Dr. Comby enumerates as diagnostic points, a protuberant abdomen, tympanism, and the characteristic succussion sound. The subject is an interesting one, and though some may not be inclined to accept the author's conclusions, particularly as regards its etiological relation to rickets, it may serve to stimulate to profitable research.

BINDING OF THE JOURNAL.—In answer to many inquiries we will state that any parties who may desire it, can have the volumes of their JOURNAL bound in good strong binding suited to the size of the volume (cloth sides and leather backs), neatly lettered with title and number of volume on the back, for *one dollar per volume*. The binding is done by the Chicago Legal News Company. Volumes that are properly wrapped and labelled, sent to this office free of charge to us, we will take charge of, get bound and return them as soon as possible, for the accommodation of our readers. We have no arrangements for furnishing simply skeleton backs or binding, as is done by the publishers of a few journals, simply because no book-binders wish to prepare and keep a stock on hand without some assurance that the JOURNAL will be continued in the same city more than one year.

NEW YORK STATE MEDICAL ASSOCIATION.—The first annual meeting of this Association was held in the city of New York from the 18th to the 21st inst. The meeting was numerously attended, harmonious, and well supplied with papers of interest and value.

An excellent plan of organization for the State was adopted. We omit a part of the matter under the head of Medical Progress and some of the editorial items to give place in this number to the first half of the proceedings as furnished by our special correspondent. The remainder of the proceedings and the President's address will be given in our next number, as they were received a day too late for this issue.

DEATH OF DR. SAMUEL M. BEMISS, OF NEW ORLEANS.—This eminent and well-known physician and medical teacher died suddenly at his residence on the evening of the 17th inst. A further notice and biographical sketch will be given in our next number.

SOCIETY PROCEEDINGS.

NEW YORK STATE MEDICAL ASSOCIATION.

First annual meeting of the New York State Medical Association, held at the Murray Hill Hotel, New York, November 18, 19 and 20, 1884; the President, Henry D. Didama, M.D., of Syracuse, in the chair.

FIRST DAY—MORNING SESSION.

Report of the Committee of Arrangements.—Dr. J. W. S. Gouley, chairman of the Committee, delivered an address of welcome, and gave an analysis of the programme of the meeting, stating that fifty-four papers had been received.

Address by the President.—In it he laid special stress on the paramount importance of therapeutics in a sound medical education, and reminded his hearers that, however admirable a thing culture might be, it should not be allowed to take equal rank with the essential branches of the healing art. He strongly advised the adoption of the three years' graded course by the colleges, and drew a striking contrast between the old and new systems of medical training.

Addresses by Delegates from other State Societies.—During the session a large number of delegates from other States were introduced. Dr. Shoemaker, of Philadelphia, spoke for the Pennsylvania State Society; Dr. S. S. Clark, of St. Albans, for the Vermont Society, and Dr. Wylie for the Connecticut Society. Dr. Wm. Detmold, President of the New York County Association, also made an address.

Report of the Committee on Organization of District Associations—Dr. Gouley, chairman, reported that the Committee recommended the formation of five district associations, to be known as the first or Northern, the second or Eastern, the third or Central, the fourth or Western, and the fifth or Southern; that the vice-presidents of the parent association should be the presidents of the district associations to which they respectively belonged; and that each of the district associations should have one stated meeting each year, the number of special meetings being left to each association to determine for itself.

After some discussion the report was unanimously adopted. From twelve to fourteen counties are represented in each of the five district associations, which were afterward organized in accordance with the plan proposed. The first stated meeting of the first district association is to be held at Utica on the second Tuesday in July, of the second at Saratoga on the fourth Tuesday in June, of the third at Syracuse on the second Tuesday in June, and of the fifth at Brooklyn on the third Tuesday in September.

The address on Surgery was delivered by Dr. E. M. Moore, of Monroe county, who took for his subject the "Transfusion of Blood."

He preferred the use of natural blood for this purpose to defibrinated blood, milk, or any of the saline solutions which had been employed by others. The two great dangers to be avoided are, ingress of air into the vein and coagulation of the blood, and in order to avoid the latter it was requisite that the period of transfusion should be short and definite. Unless the syringe, which was almost universally employed in the performance of this procedure, were held perpendicularly, air was constantly liable to be injected into the vein; and therefore he had devised a simple apparatus which obviated the necessity of a syringe, and also enabled the operator to make the transfusion in a very brief period of time. It consisted of a long narrow India rubber sac, to the lower end of which was attached a canula, provided with a rounded stiletto and Moncocque's mandril, by means of which the supply of blood could be instantly shut off. Another advantage of this instrument was that it required no lubricating, as was necessary for the packing of syringes, and by reason of which impurities might be introduced into the blood. The blood of the donor was to be received in a funnel held in the mouth of the rubber sac, and more than two ounces was never to be drawn at one time, on account of the danger of coagulation. Even less than this quantity was often sufficient, and if more were required, the operation could be repeated without withdrawing the canula from the vein of the patient.

AFTERNOON SESSION.

Dr. J. C. Hutchinson, of Kings county, read a paper on "Transfusion," in which he described a new apparatus. It consists, first, of a glass cylinder, graduated in fractions of an inch and holding twelve ounces. In an opening of the metallic cap which covers its lower extremity is fitted a punch screw, and the rubber cap at the top of the cylinder is perforated by a thermometer. The cylinder is placed in a double rubber bag which is filled with hot water, but which is so arranged that the graduated scale of the cylinder can be observed. The fluid within the cylinder flows through a rubber tube, the upper end of which is secured with the punch screw mentioned, and the lower end of which terminates in a canula provided with a slip-knot, which is inserted into the vein of the patient. Dr. Hutchinson prefers the use of saline solutions to blood for transfusion, as he thinks the action of the transfused fluid is dynamic rather than nutritive. From twelve to twenty ounces of fluid should be used, and the flow should not exceed one ounce per minute.

Dr. Rochester, of Erie county, thought that the quality of the fluid used in transfusion was of more importance than the quantity, and said that in the cholera epidemic of 1849 and 1850, in New York, all the patients in whose cases transfusion with saline solutions were employed (although temporarily improved by it) eventually died.

The President said that in cholera times it used to be remarked that "salting a patient and curing a patient were two different things."

Dr. Alfred S. Carroll, of Richmond county, read a paper on "The Question of Contagiousness after Acute Infectious Diseases." As this was a matter of great practical importance, especially in regard to the return of children to school after such illnesses, he had addressed inquiries to a number of prominent medical men throughout the State, but except in regard to small-pox the replies had varied very widely. The

results of his inquiries would subsequently be embodied in a report to the State Board of Health, and he trusted that the Fellows of the Association would favor him with any data that had been noted by them bearing on this subject.

Dr. John S. Jamison, of Steuben county, read a paper on "Chronic Intestinal Catarrh," which was an exhaustive treatise on the subject. Before the part of it devoted to treatment was reached, the reader was interrupted by the expiration of the half hour which was the limit for the reading of all papers.

Dr. Edward R. Squibb, of Kings county, read a paper on "The Modern Progress of Materia Medica," in which he said that physicians did not now depend on the books for the determination of doses of medicines, but upon the physiological and therapeutical effects which they produced, that drugs were used in more concentrated forms (fluid extracts having to a great extent superseded tinctures and syrups), that fewer and more active agents were employed, and that the quality of drugs was much more closely scrutinized.

Dr. W. H. Robb, of Montgomery county, read a paper on "The Management of Criminal Abortion," in which he discussed the best methods for controlling hæmorrhage, removing the entire ovum, the prevention of septicæmia, and the restoration of the patient to health. For the control of hæmorrhage he depended on ergot and digitalis internally or hypodermically, and locally the use of the hot vaginal douche and tents introduced into the mouth of the uterus. For the removal of the ovum, in order to accomplish which it was often necessary to dilate the os, there was ordinarily no instrument so good as the finger; but it was sometimes necessary to resort to the curette, or the female blade of the blunt-hook and crotchet. Such procedures should always be followed by intra-uterine antiseptic injections.

Dr. Ely Van de Warker believed that ergot was useless as a hæmostatic upon or at the third month, and he thought steel dilators preferable to the use of tents for dilating the os uteri. He had found the blunt curette of great service in removing the remains of the ovum, and thought it sometimes of advantage to swab out the interior of the uterus with the tincture of the chloride of lime after its use.

Dr. Charles Bulkley, of Monroe county, read a paper on "Chronic Mercurial Poisoning." The case on which the paper was based was that of a patient who suffered from symptoms resembling those of arsenical poisoning, but which were ascertained to be due to the mercury used in the coloring of the hard red rubber dental plate which she wore. Since then he had met with several other similar cases, though of less severity.

Dr. R. H. Sabin, of Albany county, read a paper on "A Case of Acute Lead Poisoning, Resulting Fatally." There was probably serous effusion of the brain, though an autopsy could not be obtained. The patient, while apparently in good health, fell suddenly to the floor, and remained unconscious up to the time of death, a period of thirty-two hours.

The following papers were read by title: "The Therapeutics of Diphtheria," by Dr. J. W. Moore, of Albany county; "Notes on Dislocation of the Hip, based on 238 cases occurring in the State of New York," by Dr. Frederick Hyde, of Cortland county; and "Intestinal Obstruction," by Dr. Avery Segur, of King's county.

EVENING SESSION.

Dr. H. E. Mitchell, of Rensselaer county, read a paper on "Errors of Refraction: the Importance of their Recognition and Correction in Early Life."

The rapidly increasing number of defective eyes in children, he thought, could be arrested to some extent, at least, if more general practitioners would provide themselves with sets of the ordinary test types, and with the optometer, which was a very simple, but useful instrument, which demands to be better known.

Dr. Austin Flint, Sr., of New York, read a paper on "The Dietetic Management of Dyspepsia," in which he maintained that dyspepsia and indigestion are distinct affections. The greater number of dyspeptics at the present day, he thought, were individuals who endeavor to regulate their diet and all the habits of life in accordance with certain rigid rules which were formerly much more in vogue than now, and especially in New England. The guides for eating should be the appetite, the palate, and common-sense. Dietetic idiosyncrasies are much less common than many believe to be the case, and the patient's experience with particular articles of food was apt to be extremely fallacious. In general, the diet which was beneficial to the healthy individual was beneficial to the dyspeptic. It was a mistake to leave the latter hungry, and food was to be taken not merely at stated intervals, but whenever the appetite craved it.

Dr. N. C. Lynde, of Erie county, read two papers, the first on "*Double Synchronous Amputations*," with a table of such operations collected from the reports of surgeons throughout the State, and the second on "The Functions of the Auricle." In this paper he claimed that the main function of the auricles was merely that of a reservoir into which the great veins emptied, and the principal part of the paper was devoted to an argument in support of the proposition that they did not contract. In the course of this he claimed that the pulse in the jugular vein was due exclusively to the contraction of the right ventricle.

Dr. Austin Flint, Jr., remarked that the views of the author of the paper were in direct variance with those of all recognized physiological authorities, and that personally he had often himself actually seen the auricles contract in animals whose hearts had been exposed. He claimed that if the auricles did not contract their walls would become atrophied, as was the case with muscles that had become paralyzed, and that direct observations on dogs (without exposing the heart), had shown that the auricles, as well as the ventricles, contracted. This was done by means of sounds which were introduced into the cavity of the heart through the jugular vein and which were provided with two rubber bags, one of which entered the auricle and the other the ventricle. It was found in this way that two-tenths of the time of the heart's whole pulsation was occupied with the contraction of

the auricles, two-tenths with the contraction of the ventricles, and the remaining four-tenths with the general diastole.

Dr. Austin Flint, Sr., claimed that the jugular pulse was due to the contraction of the right auricle, as well as to that of the right ventricle. That there was an auricular, as well as a ventricular jugular pulse, seemed to be proved by the fact that preceding the contraction of the ventricle (the time of which could be positively determined by the impulse of the heart, the first sound, and the carotid sound), a pulse could be detected in the jugular vein which could be due only to the contraction of the auricle. This, he believed, he himself had been the first to point out.

The paper was also discussed by Drs. Moore and Ross, both of whom opposed the views expressed in the paper, and Dr. Lynde then said that in a large number of cases he had plunged trocars and canulæ into the auricles of dogs, he had never succeeded in getting the blood to come through the instruments; while when the same canulæ were introduced into the ventricle a strong stream of blood invariably flowed through them; which seemed to afford conclusive evidence that the auricles did not contract.

Dr. E. D. Ferguson, of Rensselaer county, read a paper on "The Use of the Aspirator in Hydrothorax." He had seen such bad consequences, such as empyema and death, resulting from the too free use of the aspirator, that he now made it a rule never to use it in this condition except when dyspnœa or other serious symptoms supervened, and when he did resort to aspiration carried the procedure only to a very limited point. Dr. Bowditch had advised that it should not be discontinued until pain in the epigastrium or dyspnœa was produced; but he thought that it should be stopped before the occurrence of these symptoms, which indicated serious difficulty, and that more than a pint of fluid at the utmost should never be withdrawn at a time. Much evil had also resulted from aspiration of the pelvic cavity, in which the greatest caution ought to be observed, and he thought that on the whole the instrument had perhaps done more harm than good in the hands of the profession.

The paper was discussed by Drs. T. F. Rochester, of Buffalo; Flint, of New York; Moore, of Rochester, and Fifield, of Boston, a delegate from the Massachusetts State Medical Society; and Dr. Rochester read a paper on "A New Procedure in Paracentesis Thoracis."

The procedure referred to was the introduction of the finger into the opening and the separation of the ribs in those cases in which the closeness of the ribs prevented the insertion of a drainage-tube. He had used this in these cases with success.

SECOND DAY—EVENING SESSION.

Dr. Gouley proposed a plan for dividing the Association into five sections at its future meetings, and on motion the matter was referred to the Council, with the request that they should report on it at the next annual meeting.

Library in New York.—On motion of Dr. Gouley, a series of resolutions providing for the formation of a library of the Association to be located in the city of New York, was unanimously adopted.

Dr. S. C. Allen, of Rensselaer county, read a paper on "A Case of Diarrhœa from Disease of the Pancreas."

The patient suffered from what the author of the paper termed "adipose diarrhœa," but improved greatly under treatment. The case was complicated with renal disease, and death finally resulted from uræmic coma. No autopsy was permitted.

Dr. T. Gaillard Thomas then delivered the address on Obstetrics and Gynæcology.

Having glanced at the past history of obstetrics, he said that, in his judgment, one of the greatest achievements in modern pathology had been the discovery of the agency of certain micro-organisms, classed under the head of bacteria, in the production of septicæmia, pyæmia and other similar affections. Although the obstetricians of the present day were not prepared to make antiseptic midwifery the rule whenever that art was practiced, it was highly probable that in the very near future this proposition would be accepted. To free the parturient act from the dangers of septic poison would be to save millions of lives in every generation. The germ theory had also revolutionized the treatment of that variety of septicæmia known as puerperal fever. He spoke next of the successful treatment of extra-uterine pregnancy by laparotomy, and lauded the use of electricity before the rupture of the cyst. In placenta prævia and cases of uræmia during pregnancy he advised the induction of premature labor as a sovereign resource. In the obstetric forceps he thought the only real improvements which had been made since the time of the Chamberlins were the additional length and pelvic curve added by Levret and Smellie and the tractors of Tarnier. He concluded this portion of the address with a plea for the adoption of laparo-elytrotomy in preference to the Cæsarian section or Porro's operation.

The brilliant results in gynæcology during the past quarter of a century, Dr. Thomas attributed to the bringing into the service of this department the powerful aid of surgery; although he wished it to be understood that he was a strong advocate for the great advantage of constitutional treatment in diseases of the pelvic viscera of the female. In most of the pathological conditions met with by the gynæcologist, surgical interference was often an essential to cure. Having spoken of the good achieved by Emmet's, Battey's, Hegar's and Tait's operations, he referred to extirpation of the uterus, and summed up by saying that Freund's operation of the removal of the uterus by abdominal section, on account of its difficulties and dangers, was now relegated to the past; while vaginal extirpation had conquered for itself the position of a recognized, legitimate, and even valuable procedure. After alluding to the forcible distension of the uterine canal by a divulsor, or expanding forceps, as a treatment for uterine deformities, he spoke, in conclusion, of four drugs which had recently been introduced into gynæcological practice, viz.: permanganate of potassa and the fluid extracts of the *stigmata* and *ustilago maidis*, of the *viscum album*, and of the *viburnum opulus* and *viburnum prunifolium*.

Permanganate of potash he considered the best emmenagogue which has yet been discovered.

SECOND DAY.—AFTERNOON SESSION.

The following papers were read by title: "Pyæmia and Death After the Operation for Convergent Squint," by Dr. J. J. A. Burke, of Monroe county; "Relations of Habit to Disease," by Dr. C. M. Kittridge, of Dutchess county; "Report of a Case of Nephro-Lithotomy for Calculous Pyelitis," by Dr. F. N. Seymour, Rensselaer county; "Report of a Case of Excision of the Rectum for Cancer," also by Dr. Seymour; "The Practice of Medicine of Fifty Years Ago with Comparative Position at Present," by Dr. B. L. Hovey, of Monroe county; "Notes on Peat as a Surgical Dressing," by Dr. W. S. Tremaine, of Erie county, and "A Case of Ovarian Cyst, with Operation," by Dr. T. M. Lloyd, of King's county.

Dr. Darwin Colin, of Wayne county, read a paper on "Venesection in the Convulsions of Pregnant and Parturient Women," in which he made a strong plea for this procedure, basing his opinion on a large number of cases in the practice of his father and himself, both before the introduction of the use of chloroform, ether, chloral, bromide of potassium and hypodermic injections of morphia.

In the discussion which followed, Dr. Moore, of Rochester, said he believed that recovery in these cases depended on the elimination from the system of the poison which was creating the disturbance, and that nothing was so efficient in doing this as cathartics. Since, however, the patient was liable to die before the latter could have their appropriate effect, anything that would suspend the convulsions for the time would prove of service. Blood-letting undoubtedly did this; but there were other agents which he preferred for this purpose, and the best of all, in his opinion, was ether. The inhalation of this should be kept up unremittingly until either the uterus had been emptied or the bowels had been moved by a purgative.

Dr. Thayer, of Brooklyn, referred to the use of Norwood's tincture of veratrum viride, in teaspoonful doses, as very efficient in controlling convulsions and preventing their recurrence.

Dr. C. C. F. Gay, of Erie county, read a paper on "Fracture of the Base of the Acetabulum."

(TO BE CONTINUED.)

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting Nov. 6, 1884. The President, R. A. CLEEMAN, M.D., in the chair.

Removal of Uterine Appendages for Menstrual Epilepsy Recovery. DR. E. E. MONTGOMERY exhibited the specimens and read the history of the case. Sarah H., æt. 17 years, was admitted to the Philadelphia Hospital, April, 1884. She suffered from an attack of inflammatory rheumatism in childhood and began to have epileptic seizures in her thirteenth year, these were slight at first, but have recurred every month, increasing in number and violence, so that at present she is unconscious from ten days to two weeks out of each month. There has only once been a trace of menstrual discharge and that for a single day only. There is no history of any chronic disease in the family; brothers and sisters are healthy. The patient was pale, flabby, anæmic, poorly developed and extremely nervous. The external genitals were but slightly developed, the uterus small and no special tenderness over the pelvis. Iron tonics and a generous diet were given; the bromides were not well borne. Owing to her youth and the fact that she had not yet menstruated, it was deemed best to undertake to establish the menstrual function and exhaust the antispasmodics before resorting to operative interference. The failure of all remedial measures was complete, and on September 13 the operation was performed; both ovaries and tubes were removed. No antiseptic was used about the wound. All the water used had been well boiled. Absorbent cotton was placed over the wound which had been closed with silk sutures. The operation occupied thirty-five minutes. The recovery was uninterrupted until the night of the 26th of September when she had four epileptic seizures. There were recurrences of slighter attacks during the next three nights, but they were shorter, and during the intervals she was perfectly conscious. During the first four days of October, spells of staring with momentary unconsciousness occurred, becoming less frequent and lighter. A well marked convulsion on the night of Oct. 14 was followed by from one to four convulsions daily until the 29th. But they have not been so severe as before the operation.

Removal of Parovarian Cyst, Recovery. DR. E. E. MONTGOMERY presented the specimens and related the history as follows: Mrs. A., æt. 30 years, native of England, married, never pregnant, has suffered from an enlargement of the abdomen for seven years. As it was first noticed a few months after her marriage she supposed herself pregnant. Her menses have never been interrupted, now occur every three weeks, are very slight, and have never been excessive. She suffers from severe pain the week before menstruation over the lower portion of the abdomen and through the hips. She suffers at other times from pain in the feet and legs and from a sensation of weight. The tumor has been tapped some six times. The fluid was always of a pale straw color. The largest quantity removed at any one time was 40 lbs. The last tapping was on June 27, 1884. She has had four attacks of peritonitis.

When first seen last July, two weeks after the last tapping, the abdomen was swollen and tender to pressure; fluctuation was distinct. Since that time the abdomen has increased considerably in size, presenting a prominent tumor distending the whole abdomen, nearly symmetrical, but projecting slightly to the right side, circumference at umbilicus 32 inches, distance from symphysis to umbilicus 7 inches, to ensiform 13 inches; fluctuation distinct over the whole tumor; coughing projects the whole mass forward and downward. Her general condition is good, she is quite active.

Diagnosis, a Parovarian Cyst, *Plan of Operation*—exploratory incision, remove the tumor if possible,

but if the adhesions were too great to permit that, then to open the sac, stitch it to the integument, and introduce a drainage-tube and thus secure obliteration of the sac.

Operation Oct. 9, abdominal wound 4 inches, adhesions universal, but generally broken up without difficulty, no ligatures were needed. The intestines were not seen, being concealed by old inflammatory deposits. The right ovary was enlarged and was also removed. The wound was closed with seven sutures, and a glass drainage-tube introduced. Salicylated cotton in a thick layer was placed over the wound. Suppositories of morphia were used to control pain which continued to a greater or less extent for two weeks, arising partly from inflammatory conditions and partly from collections of gas in the intestines. The abdominal wound discharged freely, three ounces the first day. The drainage-tube was removed on the 13th, four days after the operation, but the discharge of bloody serum, pus and flaky lymph continued for full two weeks later when the wound closed entirely and the patient was discharged.

Dr. B. F. Baer presented the specimens and read the following report of a case of *Placental Polypus which simulated malignant disease of the uterus.* The patient was 35 years of age, married and had two children at full term, the last twelve years ago. She has had several abortions since, but otherwise she has enjoyed good health, Her mother died at the age of 38 of cancer of the uterus. In the early months of this year our patient first noticed that her catameniæ were becoming too frequent and were attended with expulsive pains and a fetid watery discharge in the intervals. The blood loss increased in quantity and she soon began to show signs of failing health in pallor and loss of flesh. She would not permit a physical exploration until the latter part of July, when she had a violent flooding with great pain. *Examination* now revealed to Dr. R. Armstrong, of Lockhaven, Pa., whose patient she was, a healthy condition of the cervix and a normal os, but the body of the uterus was enlarged to more than double its natural dimensions, it seemed to be symmetrical and rather softer than usual. The hæmorrhage was controlled by ergot and rest. Although the grumous fetid discharge and the uterine tenesmus continued, she did not have another severe attack of metrorrhagia, probably because of her exsanguine condition and the fact that she was suffering from septic absorption. Her temperature rising as high as 104° in the afternoon, she had distinct rigors. Her abdomen was tympanitic and very tender to the touch. The physical condition of the uterus led the doctor to introduce two tents into the cervical canal on Sept. 23. They were allowed to remain 24 hours although their presence increased the violence of the symptoms. When the tents were removed, a rather soft friable mass could be felt presenting at the internal os. This led to a fear that the disease might prove to be malignant. A severe colliquative diarrhœa now set in and the patient's strength became so much reduced that nothing could be done except to administer remedies to check the diarrhœa and to prevent collapse. On the morning of the 25th, through the kindness of Dr. Armstrong, I saw the patient, temperature 103°, pulse rapid and weak, stomach irritable, rejecting everything taken, bowels still quite relaxed. Her face presented the livid hue of malignant disease. The outlook was not favorable for an operation which would necessitate the dilatation of the cervix sufficiently to remove the diseased tissue which evidently occupied the uterine cavity, but it was the only course to pursue. Ether was administered. The uterus was found retroverted and adherent to the floor of Douglas's cul-de-sac. The cervix was rigid and but slightly patulous In view of existing peritonitis we concluded that it was best that I should endeavor to remove the contents of the uterus without a further attempt at dilatation, fearing rupture of adhesions and increased inflammatory action, I passed the wire loop of the écraseur through the os, and by careful manipulation luckily succeeded in guiding it over the tumor and up to its attachment. Drawing upon the wire it closed around the pedicle and severed it. The tumor was seized with a vulsella forceps and delivered. The index finger could not be passed into the cavity of the uterus. The pedicle was situated on the posterior wall near the fundus. The tissues at that point were soft and friable, but the remainder of the surface of the uterine cavity appeared to be free from disease. The stump was cauterized with nitric acid, and a two-grain opium suppository placed in the rectum. Convalesence was rapid and satisfactory.

On section and close examination the specimen very much resembles placental tissue, and the microscope shows typical placental villi in its structure. It is the *placental polypus* described by C. Braun in 1851, and somewhat resembles the *fibrinous polypus* of Kiwisch who thought that these polypi might arise from long persistent hæmorrhage, a kind of apoplexy of the womb, a large coagulum forming, the upper part consisting mostly of fibrin and adhering by a stalk to the uterine wall, whilst the lower consists of red, soft coagulum having a coat of firm fibrin. Scanzoni does not admit this view. He contends that these are cases of abortion and would therefore fall under the class of placental polypi (*Barnes*). My own experience agrees with that of Scanzoni. These polypi cause profuse metrorrhagia and sometimes, as in this case, blood poisoning.

This case furnishes another strong argument in favor of the entire removal of the decidua or placenta after abortion. Who can tell how many lives are lost or in how many cases the health is undermined by a neglect of this procedure? Death would inevitably have occurred in this case if the uterus had not been emptied. The patient may suffer for months or years as a result of neglect. In this instance the fault was in the patient, for she had been properly advised by her physician. It is true that many cases escape without serious injury, but that does not prove that the principle and practice of immediate removal is not always the safe one, for here is a case where a neglected abortion had apparently passed off safely, but it almost destroyed the patient's life a long time afterward.

Malignant disease was properly suspected from the

rapid development of such grave symptoms, from the general cachectic appearance of the patient and from the sensation conveyed to the finger when touching the growth *in situ*. But when it was found that it had a limited point of attachment and that the uterine cavity was healthy at all other points this hypothesis was weakened, and when more careful examination of the specimen and investigation with the microscope showed it to contain placental villi, its benign character was assured.

DR. MONTGOMERY remarked that in cases in which partial dilatation of the uterine canal had been accomplished before the patient presented, the best instrument to continue the dilatation is the mechanical urethral dilator of Dr. A. H. Smith.

HAIR-PIN IN THE UTERUS.

DR. B. F. BAER exhibited a hair-pin removed from the uterine cavity of a patient sent to him by Dr. Pancoast, of Camden, N. J. The woman believing herself to be pregnant had tried to produce an abortion by inserting the pin by grasping the points and inserting the blunt end. The patient had obtained a view of the parts in a mirror placed upon the floor. The presence of the pin was readily detected by the uterine sound. He at first thought of dilating with tents, but, the patient being greatly alarmed and very importunate, he used the steel dilator. One point of the pin became imbedded, in its descent, in the tissues of the cervix and required dissection to release it.

DR. WHARTON SINKLER exhibited a hair-pin removed from the vagina of a patient who had tried to introduce it into the uterus to produce abortion. She had failed in her purpose and had also failed to remove it from the vagina. The doctor found the points of the pin widely separated, presenting downward and hooked into the walls of the vagina. By bringing the points close together the pin was removed without difficulty. It had been in the vagina for some time.

DR. MONTGOMERY stated that, while a student, he had seen a hair-pin removed from a vagina. It was thickly incrusted with a calcareous deposit.

FOREIGN CORRESPONDENCE.

PARIS LETTER.

PARIS, November 7th, 1884.

Dr. Régis, of Bordeaux, read a very interesting paper at the meeting of the Association Française pour l'avancement des Sciences, lately held at Blois, on the heredity of general paralysis. During a service of three years as interne at the Sainte-Anne Asylum, 318 cases of general paralysis were brought under the author's notice, and the following are the conclusions taken from his observations: Mental disorder or insanity is almost never found amongst the ancestors of a patient suffering from general paralysis, whereas cerebral affections are frequent. This immunity is found equally among the descendants of general paralytics. These descendants are, in general, normally constituted, and if there is anything remarkable about them, it is their superior intelligence rather than their intellectual or mental inferiority. The comparative study of heredity in general paralysis and in insanity teaches that, contrary to the opinion of some authors, these two affections are not branches of the same family, and that they are incapable of engendering each other mutually. The practical deductions accruing from this fact are most important. A physician consulted about the future of the child of a general paralytic subject may now reply with some assurance that such a child is not necessarily predisposed to insanity, that all that is to be feared, by predisposition, is cerebral affections, and consequently the two critical periods of life, viz.: infancy, when there is a great tendency to cerebral accidents; and mature age, when cerebral paralysis, and even general paralysis, are more common. Moreover, if the physician is consulted as to the propriety of marriage with the offspring of a general paralytic subject, the answer may be in the affirmative, as this affection does not predispose to insanity.

A note from M. Lailler was lately read at the Academy of Sciences on the elimination of phosphoric acid in insanity and in epilepsy, and the following is a summary of the results of his investigations:

1. In acute delirium, in acute mania, there is a notable excess in the elimination of phosphoric acid and of urea.

2. In mania with excitement, the elimination of phosphoric acid is slightly in excess; that of urea is normal.

3. In simple mania, the urine is in a physiological state.

4. In lypemania, in its acute state, or when accompanied with excitement, there is a notable increase of the elimination of urea, and a rather slight elimination of phosphoric acid.

5. In lypemania without excitement, the quantity of phosphoric acid and of urea eliminated does not exceed that of the normal state.

6. In general paralysis the excretion of phosphoric acid and of urea is in relation to the numerous morbid states which characterize this form of mental disorder.

In epilepsy, the urine, during the paroxysms or immediately after, contains a proportion of phosphoric acid notably superior to that of the average, and a feeble proportion of urea; when the paroxysms succeed each other rapidly, there is an increase of phosphoric acid and of urea; in the intervals between the paroxysms the urine is normal.

In his thesis for the doctorate, Dr. Blanc spoke in the most favorable terms of the treatment of acute abscesses by the injections of alcohol, which he observed in the wards of Professor Gosselin, at La Charité Hospital. The mode of procedure is as follows: The abscess having become soft and fluctuation evident, a puncture in preference to an incision is made. The matter is then gently squeezed out, and

about 60 centilitres, or about a pint of alcohol of 90 degrees, is injected into the cavity. The alcohol is then pressed out with the matter with which it may be mixed up, and another injection of the same quantity of alcohol is made, which is allowed to run out freely. The wound and the exterior of the abscess are then dressed with camphorated spirits or ordinary alcohol. If, on the following day, the suppuration has not stopped, another injection is made, and then a third, or even a fourth, according to the size and state of the abscess. A rather severe pain follows, and lasts for about a quarter of an hour after the injection; the site of the abscess and the parts in its neighborhood become hard and inflamed by the injections. But these phenomena disappear in a time proportionate to the size of the abscess, which is completely healed in from four to six days after the last injection. Dr. Blanc explains the *modus operandi* of the injections thus: The alcohol has a double action; it destroys the pus already formed, and prevents its reproduction by acting on the capillaries of the parietes of the abscess, and in provoking the secretion of plastic lymph and consecutive adhesion.

Dr. Taillefer, of Châteauneuf, in washing out the stomach of one of his patients by means of a syphon formed with an India rubber tube and a funnel, had the idea of employing the same means for washing out the bladder of another patient whom he had under treatment, but in whom he had till then employed a more complicated process with a double catheter and a syringe for the same purpose. The advantages claimed for this method are simplicity and inexpensiveness. All that is required to be purchased is an India rubber tube of about 60 centimetres long. A funnel is found in every household. This dispenses with the syringe and the double catheter. To cleanse the bladder, Dr. Taillefer begins by emptying it with an ordinary catheter, he then applies the extremity of the India rubber tube to the catheter without removing it from the bladder. He fills the funnel which is held rather below the level of the bladder. He then raises the funnel in order to allow the liquid to enter the bladder, and then lowers the funnel to let the liquid run out. In this way the patient is saved the pain which is sometimes caused by the adapting of the pipe of the syringe to the orifice of the catheter. A. B.

BERLIN LETTER.

BERLIN, GERMANY, Oct. 22, 1884.

MR. EDITOR:

Since my last letter from Copenhagen, I have been secluded in the quiet little German town of Weimar, which is celebrated as having been the home of the most celebrated German poets, Goethe and Schiller, as well as of Herder and Wieland.

I had hoped, on my return to Berlin, to be able to give you at once a letter about the Royal University; but I find it impossible at present, because there is a great difference between the customs here and ours. Although the University nominally opens on a certain day, the 16th of October, yet in reality the professors commence their lectures whenever they please, at times varying from the middle of October to the first week in November, so that, as yet, the University is not in working order.

Last Monday, October 20, a great feast was given in the evening in the "Central Hotel," in honor of Prof. Dr. Rudolf Virchow, who is a member of the Reichstag, and who has been a city official for twenty-five years. The great hall of the hotel was completely filled with ladies and gentlemen, and was handsomely decorated with flags, a pleasant feature being a bust of Prof. Virchow in the middle of the hall, very tastefully decorated. There were two excellent musical concerts, interluded by speeches, and followed by a dance which lasted until the small hours.

There is a report that a certain German doctor has succeeded in producing cholera in rabbits, and that his bacilli have been submitted to Prof. Koch, who admits that they are indeed "comma bacilli," and that he is now testing them by cultivation, to see if they are identical with his "comma bacilli." If it amounts to anything, and we have an authentic report, I will inform you at once.

Since the meeting of the International Medical Congress at Copenhagen, Denmark and its capital city have become much more thoroughly known, and the various people who have listened to the reports of the wonderful hospitality of the Danes in general, as well as those who had the honor to be their guests, will sincerely regret the destruction by fire on the 3d inst. of the beautiful palace called "Christiansborg," of the King of Denmark, where he and his queen so handsomely received and entertained the members of the Eighth International Medical Congress, August 15. Many works of the most celebrated of Northern European artists, Albert Thorwaldsen, were destroyed, but the Thorwaldsen Museum, which contained the most of his works, and which adjoined the palace, although severely threatened, was saved.

I am sure that all members of the Congress would have been glad to add their signatures to the following address which, signed by sixty-four members, was forwarded to the King of Denmark.

"*To His Majesty Christian IX, King of Denmark:*

"May it please your Majesty:—We, the undersigned, English, Scottish, and Irish members of the International Medical Congress, lately held in Copenhagen, desire very respectfully to offer to your Majesty the expression of our profound regret at the destruction of the grand and beautiful palace of Christiansborg. We very gratefully remember the honor conferred on us in that palace, where we were received and entertained with splendid and graceful hospitality by your Majesty and the members of your Royal Family. The recollection of that reception and of all the proofs of welcome which were shown to us in the City of Copenhagen, impels us to offer, and to hope that your Majesty will graciously accept, this assurance of our sorrow for the loss which your Majesty and Denmark have sustained." N.

DOMESTIC CORRESPONDENCE.

ANSWER TO DR R. W. SUTTON.

72 LAFAYETTE AVE., DETROIT MICH., November 18, 1884.

TO THE EDITOR.—*Dear Sir:* In your issue of 15th inst., Dr. R. S. Sutton invites me to recall a fatal case of ovariotomy in my practice which occurred at Lansing, Mich., in January last, and of which he claims to have in his possession a certificate of death. In reply I must absolutely decline any such invitation, and must say to Dr. Sutton that any such certificate is either a gross blunder or a wicked forgery. *The simple fact is that I have never in my life performed ovariotomy at Lansing nor upon a Lansing patient any where at any time.* In the face of Dr. R. S. Sutton's repeated assaults upon my reputation for truth and veracity, I hope that I may be allowed to say here that if anything could exceed the grotesqueness of that gentleman's frantic efforts to advertise himself and his abdominal hospital it is his unwavering interest in me and my sayings and doings.

As might be expected, these devoted attentions on his part have led me to make some slight notes of Dr. Sutton. While I think that I can candidly disclaim everything like wrath, malice and envy, at the same time I must confess that the results of my study of Dr. Sutton's peculiar idiosyncrasies have not been agreeable nor flattering to that gentleman. In fact, sir, there seems to me to be strong reasons for suspecting that your Pittsburgh correspondent will have to be classed with those unfortunates who are said to have "lost the chart and missed the reckoning of rationality." This is the most charitable explanation of his persistent efforts to involve me in unnecessary and unseemly strife.

One word more; within a few days I propose to place on record some further facts and figures relative to my own recent experiences with ovariotomies performed in public amphitheatres in presence of hundreds of students, and in "cottages by the way-side," from which I venture to hope that some considerable comfort and encouragement may be extracted by that large and honorable class of American surgeons who do not hesitate to give the poor sufferer from ovarian disease the only possible chance which remains for her life, even although a special abdominal hospital and a *special abdominal operator* are beyond their and her reach, and even although they in their scientific modesty do not aspire to compare even their highest efforts with the tender mercies of "The Almighty," as Dr. Sutton audaciously did before the Obstetrical Section at Washington.

I am, etc., DONALD MACLEAN.

BOOK REVIEWS.

MANUAL OF CHEMISTRY. By W. SIMON, PH.D., M.D. Philadelphia: H. C. Lea's Son & Co.

This book is intended for medical and pharmaceutical students, and seems to be up to the average of works compiled for the same purpose.

A novel feature of the book is found in the plates colored to represent the precipitates formed in various qualitative tests, and it is possible that these plates may be of use to students who have not the opportunity of doing laboratory work.

The *questions* at the end of each chapter might be in place in a grammar-school text-book, but in a manual intended for colleges the propriety of appending them is much to be doubted.

A TREATISE ON PHYSIOLOGY AND HYGIENE. By JOSEPH C. HUTCHINSON, M.D., LL.D. New York: Clark & Mayard. 1884. Cloth, illustrated, 319 pages.

This school text-book has all the faults common to that class of literature. Some of the illustrations are simply for embellishment, and the text is often faulty. Besides its minor errors it has one positive evil. The lists of questions at the foot of each page and end of each chapter tempt the teacher to rely on the text-book and the parrot-like memory of the pupil rather than on a clear explanation and demonstration of the subjects taught and the due appreciation of those subjects by the student's higher mental faculties.

SURGICAL DELUSIONS AND FOLLIES. By JOHN B. ROBERTS, A.M., M.D., Professor of Anatomy Philadelphia Polyclinic, Surgeon St. Mary's Hospital. Philadelphia: P. Blakiston. Pp. 56.

This is a clever address which the author delivered before the Medical Society of the State of Pennsylvania. Without professing to go deep into scientific questions, he discusses here many minor superstitions and errors which cling about surgical practice, much in the spirit of the immortal author of "DON'T." It is doubtless true that in the routine of minor surgery more absurd and antique delusions are still in vogue than in most modern specialties. It is also true that some good physicians, who do only occasionally any surgical work, are the most hide-bound in their prejudices, and need a thorough shaking up before they will let go old notions and adapt their surgery to the present day. This little volume is both suggestive and profitable to all who look over its pages. E. W. A.

THE EAR: ITS ANATOMY, PHYSIOLOGY, AND DISEASES. By CHARLES H. BURNETT, A.M., M.D. Second edition, revised and re-written. Calf. 585 pages, 107 illustrations. Philadelphia: Henry C. Lea's Son & Co.

The author, in the second edition, has evidently spared no pains both by careful compilation and original research, to bring the work fully up to date. The part on diseases and treatment is arranged under seven sections, considering first the examination of the patient, then the various diseases according to their anatomical location, and lastly a section on the methods of relief and education of deaf mutes and partially deaf children.

C. E. W.

A Manual of Dermatology. By A. R. Robinson, M.B., L.R.C.R. & S., Edin. New York: Bermingham & Company. Cloth, 647 pp., illustrated. Price, $5.00.

This admirable work commends itself to the student and practitioner by its clearness of style, its orderly arrangement, and its full and explicit directions respecting treatment.

There is a marked resemblance among modern text-books of dermatology, and while this evidently belongs to the common species, it presents marked individual characteristics. The study of the cutaneous diseases affords an opportunity to follow the minute details of the morbid processes from the commencement of the attack until its termination in resolution or permanent lesion. The author has taken advantage of this opportunity and gives his readers an insight into the histology of many of the diseases considered.

We sincerely hope that he will prosecute his plan of a more voluminous and original work, but, however necessary that may be to the specialist, we feel assured that the present publication will fully meet the needs of the general practitioner. C. E. W.

Transactions of the Colorado State Medical Society held in Denver, June, 1884. Paper, 155 pages with eight climatic charts.

These transactions show a commendable activity on the part of the profession in Colorado.

A paper by S. E. Solly, M.D., on the influence of the local climate on Bright's disease presents as its chief physiological points, the fact that the urine in that dry region is somewhat concentrated, and as its conclusions "That acute nephritis is not especially induced by the climate, but having arisen, is in its onset aggravated by it," and respecting chronic nephritis, that the tendency of the climate is toward its cure. He does not consider that either of these propositions is fully established.

The climatic charts, two for each of the four seasons of the year, 1882, show respectively the absolute humidity in grains to the cubic foot of air and mean cloudiness in tenths, for the whole country. They are issued by the society and published at its suggestion and expense by the war department and should be seen to be appreciated.

Their most salient features are given in the following quotation from the report of the society's committee: "The extremes of dryness and moisture as indicated by this actual humidity are about as follows for the different seasons. The elevated western interior as compared with Florida and the extreme south of Texas, has one-fourth as much atmospheric vapor in spring, one-third as much in summer, and one-fifth as much in autumn, as the latter, while in winter the central portion of the country from Denver north and northeast has less than one-sixth the actual humidity that exists in the moistest portions of the south (Florida)."

The sunniest portion of the United States for the whole year, is the eastern parts of Southern and Middle California, from Red Bluff south, taking in the Death Valley, where there is less than one-tenth of cloudiness, while the cloudiest section of the whole country is in the Ohio Valley and great interior lake region, when over seven-tenths of the time there is cloudiness during the winter. It is in winter that the greatest contrast is to be noticed between the elevated interior and southwestern sections on the one hand, and the whole eastern half of our country and the northwestern corner on the other hand, bringing out into merited prominence for sunshine and as winter homes for invalids, the eastern central portion of Colorado, and much of New Mexico, Arizona and Southern California."

M. H. Sears, M.D., discussed the treatment of morphine poisoning and recommended the intravenous injection of milk. In both of the written cases which were of a desperate character, the injection was followed by improvement in the symptoms and in one case by recovery. In the successful case the patient was a male, eight ounces were injected in about 15 minutes. Some blood was allowed to escape before the milk was injected. C. E. W.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-sixth Annual Session. Held at Baltimore, Md., April, 1884.

This contribution to medical literature contains very little trash. In glancing over its pages the following items have attracted our attention.

The recommendation of C. W. Chancellor, M.D., respecting the sanitary needs of the poor, expresses the hope that in time the laboring classes may be in possession of better dwellings, and recommends means for securing this and other desirable results.

A paper on "Preventable Blindness," by Samuel Theobald, M.D, particularly cautions the profession respecting the several varieties of ophthalmia, including sympathetic, and glaucoma.

F. Donaldson, M.D., respecting the influence of lung retractility, concludes that it is "not only a powerful physiological force in respiration, but that it also produces modification of a decided character in diseases of the chest." This latter is of particular importance in making a physical diagnosis.

C. E. W.

The Elements of Physiological and Pathological Chemistry. By T. Cranstoun Charles, M.D., Philadelphia. H. C. Lea's Son & Co.

For years Germany has taken the lead in the advanced study of the purely scientific branches of medicine, and the laboratories of the great universities have pushed research to an extreme scarcely possible anywhere else. The names of the men at the head of these laboratories have drawn students from all parts of the world, and these students, returned to their homes, have made the works of their teachers almost as well known there as in Germany itself.

This influence first showed itself in the translations of leading German manuals, followed in time by original works formed on German models, and embracing the results of German experience.

In physiological chemistry the books of Hoppe-Seyles, Kuchne and Gorup-Besanez have been our best authorities, and any one pretending to accurate

knowledge on the subject has been obliged to consult them.

It is an encouraging sign of the times that a book with the above title has appeared in English and that an American edition has also been issued.

In these Elements of Physiological and Pathological chemistry, Dr. Charles has given us a most excellent text and reference book. It does not in the least detract from its merits to say that throughout one perceives the influence of Hoppe-Seyles, for to successfully follow such a master is in itself no slight honor.

The volume of 450 pages is divided into four parts or books, treating of Nutrition and Foods; Digestion and the Secretions Concerned; the Chemistry of the Tissues, Organs and remaining Secretions; and the Excreta. Each book is subdivided into chapters, of which, in all, there are 98.

The information contained in these chapters is accurate, and embraces the results of the latest researches in the several departments. Methods of analysis are quite fully given where necessary, and numerous tables show the results of examinations of tissues, digestive fluids, excretions, etc.

The book can be recommended to any one wishing to obtain a clear idea of the present state of physiological chemistry.

ILLUSTRATIONS OF THE INFLUENCE OF THE MIND UPON THE BODY IN HEALTH AND DISEASE. Designed to elucidate the action of the imagination. By DANIEL HACK TUKE, M.D., F.R.C.P., LL.D. Second American from the second English edition. Philadelphia: Henry C. Lea's Son & Co. Cloth. 482 pages.

The plan of this work is sufficiently set forth in the following, from the introductory chapter:

"Psychologically, we intend to indicate, by the title we have adopted, the design of illustrating by a considerable collection of striking cases the often admitted, but too frequently forgotten, and still more frequently neglected truth, that the state of the mind, comprising therein intellect, emotion, and volition, exerts an enormous influence for good or evil upon the body with which it is associated,—including in this term all sensations, movements, and the organic functions."

The author has carefully carried out this plan, and we have presented a mass of systematically arranged material, much of which is certainly striking enough, but some of which is of little scientific value.

Quotations from the daily press and the literary classics are very useful as embellishments, but hardly serve as sufficient data for the establishment of scientific laws. In the material collected from medical sources conditions of healthy emotion and organic disease are frequently associated in such a way as to confuse the careless reader.

In the pursuit of a subject like that selected by our author, which deals with matters extraordinary, more than usual care is necessary. Nervous patients exaggerate their symptoms. The excited attendant exaggerates his report of the case. The studious compiler arranges his material in such a way that the ardent student, led on from simple matters to those more marvellous, is deluded as to the actual attributes of that most important of all organic phenomena, the mind, and in his turn becomes the victim of a self-propagating delusion.

Such a work should consist of a demonstration of the relations of the mind to the body in individuals who are organically sound; a consideration of these relations as affecting organic disease; and lastly, a consideration of environment and association as affecting mental conditions favorably or unfavorably, thus influencing the health of the individual. Thus we would have the physiology, pathology, and therapeutics of the mind. Such a work will require the greatest care and skill in its preparation.

The present volume contains enough of value to be of service to the careful reader, but falls far short of ideal perfection.

C. E. W.

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM NOVEMBER 15, 1884, TO NOVEMBER 21, 1884.

Cowdery, S. G., Captain and Assistant-Surgeon, granted leave of absence for one month. (S. O. 237, Dept. East, November 17, 1884.)

Havard, Valery, Captain and Assistant-Surgeon, granted leave of absence for four months, (permission to go beyond sea) to take effect when his services can be dispensed with at his present station. (S. O. 268, A. G. O., Nov. 14, 1884.)

Phillips, Jno. L., First Lieutenant and Assistant-Surgeon, assigned to duty at Fort Keogh, M. T. (S. O. 134, Dept. Dak., Nov. 5, 1884.)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING NOVEMBER 22, 1884.

Ames, Howard E., Passed Assistant-Surgeon, detached from the Greely relief steamer Bear, and assigned to special duty in New York, Nov. 17, 1884.

Bright, George A, Surgeon, detached from the Galena and placed on waiting orders, Nov. 19, 1884.

Cleborne, C. J., Medical Inspector, to duty at Philadelphia, Pa., as member of Medical Examining Boards, Nov. 21, 1884.

Du Bois, F. L., Surgeon, when detached from the Naval Examining Board, Nov. 29, is ordered to the Galena, Nov. 20, 1884.

Green, Edward H., Passed Assistant Surgeon, detached from the Greely relief steamer Thetis, and assigned to special duty in New York, Nov. 17, 1884.

Hall, J. H., Surgeon, detached from Navy Yard, Mare Island, and assigned to duty at the Naval Hospital at that yard, Nov. 19, 1884.

Hugg, Joseph, Surgeon, to the Minnesota as relief of Surgeon Wolverton, Nov. 15, 1884.

Martin, William, Assistant-Surgeon, to special duty in connection with the New Orleans Exposition, Nov. 19, 1884.

Nash, F. S., Passed Assistant-Surgeon, detached from the Greely relief steamer Alert, and assigned to special duty in New York, Nov. 17, 1884.

Simon, W. J., Surgeon, to the Philadelphia Hospital for treatment, Nov. 17, 1884.

Wolverton, T., Surgeon, detached from the Galena, and placed on waiting orders for sea service, Nov. 15, 1884.